

LPC 1971100002-Will
Celotex
ILD 981961634
SF/HRS

00000000000000000000000000000000

EPA Region 5 Records Ctr.



237098

CERCLA

Site Inspection

Prioritization

Analytical

Results



**Illinois Environmental
Protection Agency**

2200 Churchill Road
P. O. Box 19276
Springfield, IL 62794-9276

APPENDIX E
ANALYTICAL RESULTS

TARGET COMPOUND LIST

Volatile Target Compounds

Chloromethane
Bromomethane
Vinyl Chloride
Chloroethane
Methylene Chloride
Acetone
Carbon Disulfide
1,1-Dichloroethene
1,1-Dichloroethane
1,2-Dichloroethene (total)
Chloroform
1,2-Dichloroethane
2-Butanone
1,1,1-Trichloroethane
Carbon Tetrachloride
Vinyl Acetate
Bromodichloromethane

1,2-Dichloropropane
cis-1,3-Dichloropropene
Trichloroethene
Dibromochloromethane
1,1,2-Trichloroethane
Benzene
trans-1,3-Dichloropropene
Bromoform
4-Methyl-2-pentanone
2-Hexanone
Tetrachloroethene
1,1,2,2-Tetrachloroethane
Toluene
Chlorobenzene
Ethylbenzene
Styrene
Xylenes (total)

Base/Neutral Target Compounds

Hexachloroethane
bis(2-Chloroethyl)Ether
Benzyl Alcohol
bis(2-Chloroisopropyl)Ether
N-Nitroso-Di-n-Propylamine
Nitrobenzene
Hexachlorobutadiene
2-Methylnaphthalene
1,2,4-Trichlorobenzene
Isophorone
Naphthalene
4-Chloroaniline
bis(2-chloroethoxy)Methane
Hexachlorocyclopentadiene
2-Chloronaphthalene
2-Nitroaniline
Acenaphthyline
3-Nitroaniline
Acenaphthene
Dibenzofuran
Dimethyl Phthalate
2,6-Dinitrotoluene
Fluorene
4-Nitroaniline
4-Chlorophenyl-phenylether

2,4-Dinitrotoluene
Diethylphthalate
N-Nitrosodiphenylamine
Hexachlorobenzene
Phenanthren
4-Bromophenyl-phenylether
Anthracene
Di-n-Butylphthalate
Fluoranthene
Pyrene
Butylbenzylphthalate
bis(2-Ethylhexyl)Phthalate
Chrysene
Benzo(a)Anthracene
3,3'-Dichlorobenzidene
Di-n-Octyl Phthalate
Benzo(b)Fluoranthene
Benzo(k)Fluoranthene
Benzo(a)Pyrene
Indeno(1,2,3-cd)Pyrene
Dibenz(a,h)Anthracene
Benzo(g,h,i)Perylene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene

Acid Target Compounds

Benzoic Acid
Phenol
2-Chlorophenol
2-Nitrophenol
2-Methylphenol
2,4-Dimethylphenol
4-Methylphenol
2,4-Dichlorophenol

2,4,6-Trichlorophenol
2,4,5-Trichlorophenol
4-Chloro-3-methylphenol
2,4-Dinitrophenol
2-Methyl-4,6-dinitrophenol
Pentachlorophenol
4-Nitrophenol

Pesticide/PCB Target Compounds

alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
Heptachlor
Aldrin
Heptachlor epoxide
Endosulfan I
4,4'-DDE
Dieldrin
Endrin
4,4'-DDD
Endosulfan II
4,4'-DDT

Endrin Ketone
Endosulfan Sulfate
Methoxychlor
alpha-Chlorodane
gamma-Chlorodane
Toxaphene
Aroclor-1016
Aroclor-1221
Aroclor-1232
Aroclor-1242
Aroclor-1248
Aroclor-1254
Aroclor-1260

Inorganic Target Compounds

Aluminum
Antimony
Arsenic
Barium
Beryllium
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Magnesium

Manganese
Mercury
Nickel
Potassium
Selenium
Silver
Sodium
Thallium
Vanadium
Zinc
Cyanide
Sulfide
Sulfate

SPECIAL PESTICIDE LIST

2,4-D

Atrazine

Metolachlor -- Dual

Cyanazine -- Bladex

Fonofos -- Dyfonate

EPTC -- Eptam, Eradicane

Phorate

Metribuzin -- Lexone, Sencor

Trifluralin -- Treflan

Diazinon

Alachlor -- Lasso

DATA QUALIFIERS

QUALIFIER	DEFINITION ORGANICS	DEFINITION INORGANICS
U	Compound was tested for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by two, to account for the fact that only half of the extract is recovered.	Analyte was analyzed for but not detected.
J	Estimated value. Used when estimating a concentration for tentatively identified compounds (TICS) where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria and the result is less than the sample quantitation limit but greater than zero. Used in data validation when the quality control data indicate that a value may not be accurate.	Estimated value. Used in data validation when the quality control data indicate that a value may not be accurate.
C	This flag applies to pesticide results where the identification is confirmed by GC/MS.	Method qualifier indicates analysis by the Manual Spectrophotometric method.
B	Analyte was found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	The reported value is less than the CRDL but greater than the instrument detection limit (IDL).
D	Identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor as in the "E" flag, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and <u>all</u> concentration values are flagged with the "D" flag.	Not used.
E	Identifies compounds whose concentrations exceed the calibration range for that specific analysis. All extracts containing compounds exceeding the calibration range must be diluted and analyzed again. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses must be reported on separate Forms I. The Form I for the diluted sample must have the "DL" suffix appended to the sample number.	The reported value is estimated because of the presence of interference.
A	This flag indicates that a TIC is a suspected aldol concentration product formed by the reaction of the solvents used to process the sample in the laboratory.	Method qualifier indicates analysis by Flame Atomic Absorption (AA).
M	Not used.	Duplicate injection (a QC parameter not met).

N	Not used.	Spiked sample (a QC parameter not met).
S	Not used.	The reported value was determined by the Method of Standard Additions (MSA).
W	Not used.	Post digestion spike for Furnace AA analysis (a QC parameter) is out of control limits of 85% to 115% recovery, while sample absorbance is less than 50% of spike absorbance.
*	Not used.	Duplicate analysis (a QC parameter not within control limits).
+	Not used.	Correlation coefficient for MSA (a QC parameter) is less than 0.995.
P	Not used.	Method qualifier indicates analysis by ICP (Inductively Coupled Plasma) Spectroscopy.
CV	Not used.	Method qualifier indicates analysis by Cold Vapor AA.
AV	Not used.	Method qualifier indicates analysis by Automated Cold Vapor AA.
AS	Not used.	Method qualifier indicates analysis by Semi-Automated Cold Spectrophotometry.
T	Not used.	Method qualifier indicates Titrimetric analysis.
NR	The analyte was not required to be analyzed.	The analyte was not required to be analyzed.
R	Rejected data. The QC parameters indicate that the data is not usable for any purpose.	Rejected data. The QC parameters indicate that the data is not usable for any purpose.

SOUTHWEST LABORATORY OF OKLAHOMA
1700 West Albany, Suite A / Broken Arrow, OK 74012
918-251-2858

SDG NARRATIVE
June 26, 1995

RECEIVED

JUN 27 1995

CONTRACT NO.: 68-D5-0026

CASE NO.: 23669

US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.

CHICAGO, ILLINOIS 60605

SAMPLE NOS.: EABD9, EABE1, EABE2, EABE2MS, EABE2MSD, EABE3, EAPC1,
EAPC1RE, EAPC2, EAPC3, EAPC4, EAPC5, EAPC5RE, EAPC6,
EAPC6RE, EAPC7, EAPC8

SDG NO.: EABD9

VOLATILE FRACTION

Ten soil samples and two water samples were submitted for Volatile Organic Analysis. The samples were analyzed by GC/MS following the OLM03.1 CLP Statement of Work.

Alternate columns used by Southwest Laboratory of Oklahoma for the analysis of volatile compounds by Method OLM03.1 are the Restek XTI-5 (bonded 5% phenyl-95% dimethyl polysiloxane), 30m, 0.25mm ID, 1um film thickness (Restek #12253) and the DB624, 75m, 0.53mmID Megabore, 3um film thickness (J&W 125-1374).

An alternate trap used for the analysis of volatile compounds by method OLM03.1 is the Vocarb 3000 (Carbopack B/Carboxen 1000 & 1001; Tekmar #2-1066).

Samples EAPC1RE, EAPC5RE, and EAPC6RE are considered billable since reanalysis was performed to verify internal standard area recoveries.

No major problems occurred during the analyses of these samples.

Blanks: VHBLK1 contained low-level methylene chloride contamination below CRQL.

Surrogates: Samples EAPC5 and EAPC6 had surrogate spike recoveries outside QC limits. All surrogate recoveries for Samples EAPC5RE and EAPC6RE were within recommended QC limits.

Matrix Spikes: No matrix spikes were analyzed for the water matrix samples because they were rinsates.

Internal Standards: Samples EABE2, EAPC1, EAPC5, and EAPC6 had internal standard spike recoveries outside QC limits. The original results were duplicated in Samples EAPC1RE, EAPC5RE, and EAPC6RE, and EABE2MSD, verifying a matrix effect. Both analyses have been submitted.

SEMIVOLATILE FRACTION

Ten soil samples and one rinsate water sample were submitted for Semivolatile Organic Analysis. The samples were analyzed by GC/MS following the OLM03.1 CLP Organic Statement of Work.

The following column is used for the semivolatile analysis: Restek XTI-5 (bonded 5% phenyl-95% dimethyl polysiloxane), 30m, 0.25mm ID, 0.25um film thickness (Restek #12223).

No major problems occurred during the analyses of these samples. Water Sample EAPC7 was a rinsate; therefore, no MS/MSD was necessary. NOTE: Samples arrived at the laboratory warm (19°-20° C - see phone log).

The following samples had alkanes reported and the reports are included at the end of this narrative: EABD9, EABE1, EABE2, EABE3, EAPC1, EAPC2, EAPC3, EAPC4, EAPC5, EAPC6, and SBLK1.

Blanks: SBLK1 and SBLK2 had low-level phthalate contamination below CRQL.

Surrogates: No problems.

Matrix Spikes: No problems.

Internal Standards: No problems.

NOTE: All manual integrations in this data package for GC/MS Volatiles/Semivolatiles have been performed for one of the following reasons:

- a. Data system missed peak during acquisition.
- b. Data system improperly integrated peak.

If water samples are contained in this case, their pH data is included on the page accompanying this SDG narrative.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager, or his designee, as verified by the following signature.



Harry M. Borg
Organic Program Manager

June 26, 1995



Southwest Laboratory of Oklahoma

SDG Narrative

June 23, 1995

Case: 23669
SDG: EABD9
Contract: 68-D5-0026
Samples: EABD9, EABE1, EABE2, EABE3, EAPC1, EAPC2, EAPC3, EAPC4, EAPC5, EAPC6, EAPC7.
Fraction: Pesticide/PCB

SDG EABD9 consisted of 10 soil samples and 1 rinsate which were analyzed for pesticide/PCBs. All samples, blanks and spikes were extracted and analyzed according to EPA SOW OLM03.1. The samples were analyzed on J&W Scientific dual analytical columns (30m x 0.32mm ID, 0.25 μ m film thickness, DB-17 and DB-1701). The DB-17 phase consists of (50%-Phenyl) Methylpolysiloxane and the DB-1701 phase consists of (14%-Cyanopropylphenyl) Methylpolysiloxane. These columns were specifically designed for pesticide/PCB separation as required by the EPA's SOW. All applicable manufacturer's instructions were followed for the analysis of pesticides/PCBs. Manufacturer provided information concerning the performance characteristics of the column are kept on site.

Surrogate recoveries of all method blanks were within limits. DCB recoveries were above advisory limits for samples EAPC4 and EAPC6 and were due to matrix interference. Matrix spike/matrix spike duplicate recoveries were within advisory limits.

All soil samples in this SDG were sulfur cleaned using the copper technique as outlined in D-56/PEST, 10.1.8.3.3.2, in addition to GPC and Florisil cleanups.

The following tables list the total nanograms injected on column for each calibration standard based upon amount injected on column, 1 μ L or 2 μ L:

RESOLUTION CHECK

Compounds	Total nanograms (1 μ L)	Total nanograms (2 μ L)
gamma-Chlordane	0.01	0.02
Endosulfan I	0.01	0.02
4,4'-DDE	0.02	0.04
Dieldrin	0.02	0.04
Endosulfan Sulfate	0.02	0.04
Endrin Ketone	0.02	0.04
Methoxychlor	0.1	0.2
Tetrachloro-m-xylene	0.02	0.04
Decachlorobiphenyl	0.02	0.04

PERFORMANCE EVALUATION

Compounds	Total nanograms (1 μ L)	Total nanograms (2 μ L)
gamma-BHC	0.01	0.02

Southwest Laboratory of Oklahoma

alpha-BHC	0.01	0.02
4,4'-DDT	0.1	.02
beta-BHC	0.01	0.02
Endrin	0.05	0.1
Methoxychlor	0.25	0.5
Tetrachloro-m-xylene	0.02	0.04
Decachlorobiphenyl	0.02	0.04

INDIVIDUAL STANDARD MIXTURE A -- LOW

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.005	0.01
Heptachlor	0.005	0.01
gamma-BHC	0.005	0.01
Endosulfan I	0.005	0.01
Dieldrin	0.01	0.02
Endrin	0.01	0.02
4,4'-DDD	0.01	0.02
4,4'-DDT	0.01	0.02
Methoxychlor	0.05	0.1
Tetrachloro-m-xylene	0.005	0.01
Decachlorobiphenyl	0.01	0.02

INDIVIDUAL STANDARD MIXTURE B -- LOW

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.005	0.01
delta-BHC	0.005	0.01
Aldrin	0.005	0.01
Heptachlor epoxide	0.005	0.01
alpha-Chlordane	0.005	0.01
gamma-Chlordane	0.005	0.01
4,4'-DDE	0.01	0.02
Endosulfan sulfate	0.01	0.02
Endrin aldehyde	0.01	0.02
Endrin ketone	0.01	0.02
Endosulfan II	0.01	0.02
Tetrachloro-m-xylene	0.005	0.01
Decachlorobiphenyl	0.01	0.02

INDIVIDUAL STANDARD MIXTURE A -- MEDIUM

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.02	0.04
Heptachlor	0.02	0.04
gamma-BHC	0.02	0.04

Southwest Laboratory of Oklahoma

Endosulfan I	0.02	0.04
Dieldrin	0.04	0.08
Endrin	0.04	0.08
4,4'-DDD	0.04	0.08
4,4'-DDT	0.04	0.08
Methoxychlor	0.2	0.4
Tetrachloro-m-xylene	0.02	0.04
Decachlorobiphenyl	0.04	0.08

INDIVIDUAL STANDARD MIXTURE B -- MEDIUM

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.02	0.04
delta-BHC	0.02	0.04
Aldrin	0.02	0.04
Heptachlor epoxide	0.02	0.04
alpha-Chlordane	0.02	0.04
gamma-Chlordane	0.02	0.04
4,4'-DDE	0.04	0.08
Endosulfan sulfate	0.04	0.08
Endrin aldehyde	0.04	0.08
Endrin ketone	0.04	0.08
Endosulfan II	0.04	0.08
Tetrachloro-m-xylene	0.02	0.04
Decachlorobiphenyl	0.04	0.08

INDIVIDUAL STANDARD MIXTURE A -- HIGH

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.08	0.16
Heptachlor	0.08	0.16
gamma-BHC	0.08	0.16
Endosulfan I	0.08	0.16
Dieldrin	0.16	0.32
Endrin	0.16	0.32
4,4'-DDD	0.16	0.32
4,4'-DDT	0.16	0.32
Methoxychlor	0.8	1.6
Tetrachloro-m-xylene	0.08	0.16
Decachlorobiphenyl	0.16	0.32

INDIVIDUAL STANDARD MIXTURE B -- HIGH

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.08	0.16
delta-BHC	0.08	0.16
Aldrin	0.08	0.16

Southwest Laboratory of Oklahoma

Heptachlor epoxide	0.08	0.16
alpha-Chlordane	0.08	0.16
gamma-Chlordane	0.08	0.16
4,4'-DDE	0.16	0.32
Endosulfan sulfate	0.16	0.32
Endrin aldehyde	0.16	0.32
Endrin ketone	0.16	0.32
Endosulfan II	0.16	0.32
Tetrachloro-m-xylene	0.08	0.16
Decachlorobiphenyl	0.16	0.32

MULTI-RESPONSE STANDARD MIXTURES

Compounds	Total nanograms (1 μ L)	Total nanograms (2 μ L)
Aroclor-1016	0.1	0.2
Aroclor-1221	0.2	0.4
Aroclor-1232	0.1	0.2
Aroclor-1242	0.1	0.2
Aroclor-1248	0.1	0.2
Aroclor-1254	0.1	0.2
Aroclor-1260	0.1	0.2
Toxaphene	0.5	1.0

All manual integrations in this data package for GC/EC have been performed for one of the following reasons:

- a. Data system missed a peak during processing.
- b. Data system improperly integrated a peak.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.



Brett R Dees
GC Group Leader

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLK3	102	99	95		0
02	EAPC7	105	99	96		0
03	EAPC8	106	97	94		0
04	VHBLK1	106	98	99		0
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QC LIMITS

SMC1 (TOL) = Toluene-d8 (88-110)
 SMC2 (BFB) = Bromofluorobenzene (86-115)
 SMC3 (DCE) = 1,2-Dichloroethane-d4 (76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLK1	105	98	94		0
02	EABD9	107	86	90		0
03	EABE1	117	78	88		0
04	EABE2	121	77	91		0
05	EABE2MS	107	79	85		0
06	EABE2MSD	105	70	81		0
07	EABE3	108	79	88		0
08	EAPC1	109	80	89		0
09	EAPC5	147*	65	90		1
10	EAPC6	139*	75	94		1
11	EAPC1RE	114	70	83		0
12	VBLK2	104	102	93		0
13	EAPC2	96	94	81		0
14	EAPC3	112	86	89		0
15	EAPC4	121	79	89		0
16	EAPC5RE	124	70	86		0
17	EAPC6RE	128	78	91		0
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QC LIMITS

SMC1 (TOL) = Toluene-d8 (84-138)
 SMC2 (BFB) = Bromofluorobenzene (59-113)
 SMC3 (DCE) = 1,2-Dichloroethane-d4 (70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3B
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix Spike - EPA Sample No.: EABE2

Level (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	81	0	60	74	59-172
Trichloroethene	81	0	64	79	62-137
Benzene	81	0	75	92	66-142
Toluene	81	0	82	101	59-139
Chlorobenzene	81	0	68	84	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	81	63	78	5	22	59-172
Trichloroethene	81	67	83	5	24	62-137
Benzene	81	82	101	9	21	66-142
Toluene	81	90	111	9	21	59-139
Chlorobenzene	81	74	91	8	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Lab File ID: L16364.D Lab Sample ID: L950619A

Date Analyzed: 06/19/95 Time Analyzed: 1707

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 EABD9	22611.01	L16365.D	1742
02 EABE1	22611.02	L16366.D	1812
03 EABE2	22611.03	L16367.D	1843
04 EABE2MS	22611.03MS	L16368.D	1912
05 EABE2MSD	22611.03MSD	L16369.D	1942
06 EABE3	22611.04	L16370.D	2011
07 EAPC1	22611.05	L16371.D	2039
08 EAPC5	22611.09	L16375.D	2232
09 EAPC6	22611.10	L16376.D	2301
10 EAPC1RE	22611.05RA	L16380.D	0054
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COMMENTS:

page 01 of 01

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Lab File ID: L16388.D

Lab Sample ID: L950620A

Date Analyzed: 06/20/95

Time Analyzed: 0946

GC Column:DB-624 ID: 0.53 (mm)

Heated Purge: (Y/N) Y

Instrument ID: L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EAPC2	22611.06	L16389.D	1039
02	EAPC3	22611.07	L16390.D	1108
03	EAPC4	22611.08	L16391.D	1136
04	EAPC5RE	22611.09RA	L16392.D	1205
05	EAPC6RE	22611.10RA	L16393.D	1234
06				
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COMMENTS: _____

page 01 of 01

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

VBLK3

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Lab File ID: L16404.D Lab Sample ID: L950621A

Date Analyzed: 06/21/95 Time Analyzed: 1049

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01 EAPC7	22611.11	L16405.D	1127
02 EAPC8	22611.12	L16406.D	1156
03 VHBLK1	VHBLK23669	L16407.D	1225
04			
05			
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COMMENTS:

page 01 of 01

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

VBLK1

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: L950619A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16364.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
74-87-3-----	Chloromethane	10	U	
74-83-9-----	Bromomethane	10	U	
75-01-4-----	Vinyl Chloride	10	U	
75-00-3-----	Chloroethane	10	U	
75-09-2-----	Methylene Chloride	10	U	
67-64-1-----	Acetone	10	U	
75-15-0-----	Carbon Disulfide	10	U	
75-35-4-----	1,1-Dichloroethene	10	U	
75-34-3-----	1,1-Dichloroethane	10	U	
540-59-0-----	1,2-Dichloroethene (total)	10	U	
67-66-3-----	Chloroform	10	U	
107-06-2-----	1,2-Dichloroethane	10	U	
78-93-3-----	2-Butanone	10	U	
71-55-6-----	1,1,1-Trichloroethane	10	U	
56-23-5-----	Carbon Tetrachloride	10	U	
75-27-4-----	Bromodichloromethane	10	U	
78-87-5-----	1,2-Dichloropropane	10	U	
10061-01-5-----	cis-1,3-Dichloropropene	10	U	
79-01-6-----	Trichloroethene	10	U	
124-48-1-----	Dibromochloromethane	10	U	
79-00-5-----	1,1,2-Trichloroethane	10	U	
71-43-2-----	Benzene	10	U	
10061-02-6-----	trans-1,3-Dichloropropene	10	U	
75-25-2-----	Bromoform	10	U	
108-10-1-----	4-Methyl-2-Pentanone	10	U	
591-78-6-----	2-Hexanone	10	U	
127-18-4-----	Tetrachloroethene	10	U	
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U	
108-88-3-----	Toluene	10	U	
108-90-7-----	Chlorobenzene	10	U	
100-41-4-----	Ethylbenzene	10	U	
100-42-5-----	Styrene	10	U	
1330-20-7-----	Xylene (Total)	10	U	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

VBLK1

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: L950619A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16364.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(bug/L or bug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

VBLK2

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: L950620A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16388.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane _____	10	U
74-83-9-----	Bromomethane _____	10	U
75-01-4-----	Vinyl Chloride _____	10	U
75-00-3-----	Chloroethane _____	10	U
75-09-2-----	Methylene Chloride _____	10	U
67-64-1-----	Acetone _____	10	U
75-15-0-----	Carbon Disulfide _____	10	U
75-35-4-----	1,1-Dichloroethene _____	10	U
75-34-3-----	1,1-Dichloroethane _____	10	U
540-59-0-----	1,2-Dichloroethene (total) _____	10	U
67-66-3-----	Chloroform _____	10	U
107-06-2-----	1,2-Dichloroethane _____	10	U
78-93-3-----	2-Butanone _____	10	U
71-55-6-----	1,1,1-Trichloroethane _____	10	U
56-23-5-----	Carbon Tetrachloride _____	10	U
75-27-4-----	Bromodichloromethane _____	10	U
78-87-5-----	1,2-Dichloropropane _____	10	U
10061-01-5-----	cis-1,3-Dichloropropene _____	10	U
79-01-6-----	Trichloroethene _____	10	U
124-48-1-----	Dibromochloromethane _____	10	U
79-00-5-----	1,1,2-Trichloroethane _____	10	U
71-43-2-----	Benzene _____	10	U
10061-02-6-----	trans-1,3-Dichloropropene _____	10	U
75-25-2-----	Bromoform _____	10	U
108-10-1-----	4-Methyl-2-Pentanone _____	10	U
591-78-6-----	2-Hexanone _____	10	U
127-18-4-----	Tetrachloroethene _____	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane _____	10	U
108-88-3-----	Toluene _____	10	U
108-90-7-----	Chlorobenzene _____	10	U
100-41-4-----	Ethylbenzene _____	10	U
100-42-5-----	Styrene _____	10	U
1330-20-7-----	Xylene (Total) _____	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: L950620A

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16388.D

Level: (low/med) LOW

Date Received: / /

% Moisture: not dec. 0

Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____(uL)

Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

VBLK3

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) WATER Lab Sample ID: L950621A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L16404.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 06/21/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	10	U
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	10	U
67-64-1-----	Acetone	10	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	10	U
75-34-3-----	1,1-Dichloroethane	10	U
540-59-0-----	1,2-Dichloroethene (total)	10	U
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloroproppane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	10	U
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (Total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) WATER Lab Sample ID: L950621A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L16404.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 06/21/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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NARRATIVE

LABORATORY: SWOK
SITE: Celotex Corp Dump

CASE: 23669
SDG: EABD9

8. INTERNAL STANDARDS.

In the soil and water VOA fractions area counts and retention times for the Internal Standards were within the required QC limits except EABE2, 2MSD, EAPC1, 5, 6, 1RE, 5RE and EAPC6RE; therefore, the results are acceptable. Sample EAPC5 reported all 3 Internal Standards IS1(BCM)=Bromochloromethane, IS(DFB)=1,4-Difluorobenzene and IS3(CBZ)=Chlorobenzene-d5 below the QC limits. Sample EAPC6 reported IS2 and IS3 below the QC limits. Samples EABE2, 2MSD, EAPC1, 1RE, 5RE and EAPC6RE reported IS3 below the QC limits. Positive results for these samples quantitated using the above noted Internal Standards should be qualified as estimated (J) and non detects as estimated (UJ). Sample results from EAPC5RE and 6RE should be used due to better Internal Standard results.

RJS
07/10/95

In the soil SVOA fraction area counts and retention times for the Internal Standards were within the required QC limits; therefore, the results are acceptable.

9. COMPOUND IDENTIFICATION.

Target compounds and TICs were correctly identified by "best fit" library search method.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS.

VOA, SVOA and pest/PCB Target Compounds (TCLs) and Tentatively Identified Compounds (TICs) were properly quantitate; therefore, the results are acceptable.

11. SYSTEM PERFORMANCE.

GC/MS baseline indicated acceptable performance. The GC baseline for the pesticide analysis was acceptable.

12. ADDITIONAL INFORMATION.

NONE

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
Date: June 30, 1995

CALIBRATION OUTLIERS VOLATILE TCL COMPOUNDS

(Page 1 of 1)

Pg 87 of 14
JAC
6-30-55

CASE/SASH: 23624
COLUMN: DB624
HEATED PURGE (Y/N): N

LABORATORY: SHWOK
SITE NAME: Gates Corp Limerick

Reviewer's Init/Date: fa (6-30)-95

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

- = These flags should be applied to the analytics on the sample data sheets.
 - # = Minimum Relative Response Factor

**CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)**

Pg 98 of 14
346 6-20-75

CASE/SASH: 33669
COLUMN: DB 624
HEATED PURGE (Y/N): Y

LABORATORY: SLICK
SITE NAME: Cleto's Corp. Drug

Reviewer's Init/Date: JG/T 6-30-95

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

- = These flags should be applied to the analytes on the sample data sheets.
 - # = Minimum Relative Response Factor

**CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS**
(Page 1 of 2)

~~PZ~~ 9 ~~a~~ 14
pac 6-30-45

CASE/SASH: 23669
COLUMN: _____

LABORATORY: SLVOK
SITE NAME: Water Corp Pump

Reviewer's Init/Date: JG/6-30-95

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

- = These flags should be applied to the analytes on the sample data sheets.
 - # = Minimum Relative Response Factor

P-10 of 14

**CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS**
(Page 2 of 2)

CASE/SAS#:23669
COLUMN:

LABORATORY:Slick
SITE NAME:Wetton Coys Dumps

Instrument#	Initial Cal.	Contin. Cal.									
		#	%d								
Diethylphthalate	0.01										
4-Chlorophenyl-phenylether	0.40										
Fluorene	0.90										
4-Nitroaniline	0.01										
4,6-Dinitro-2-methylphenol	0.01										
N-nitrosodiphenylamine	0.01										
4-Bromophenyl-phenylether	0.10										
Hexachlorobenzene	0.10										
Pentachlorophenol	0.05										
Phenanthrene	0.70										
Anthracene	0.70										
Carbazole											
Di-n-butylphthalate	0.01										
Fluoranthene	0.60										
Pyrene	0.60										
Butylbenzylphthalate	0.01										
2,3'-Dichlorobenzidine	0.01										
Benz(a)anthracene	0.80										
Chrysene	0.70										
bis(2-Ethylhexyl)phthalate	0.01										
Di-n-octyl phthalate	0.01										
Benz(b)fluoranthene	0.70										
Benz(k)fluoranthene	0.70										
Benz(a)pyrene	0.70										
Indeno(1,2,3-cd)pyrene	0.50										
Dibenz(a,h)anthracene	0.40										
Benzo(g,h,i)perylene	0.50										
Nitrobenzene-d5	0.01										
2-Fluorobiphenyl	0.70										
Terphenyl-d14	0.50										
Phenol-d5	0.80										
2-Fluorophenol	0.60										
2,4,6-Tribromophenol	0.01										
2-Chlorophenol-d4											
1,2-Dichlorobenzene-d4											

Reviewer's Init/Date:MCC-30-95

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

* = These flags should be applied to the analytes on the sample data sheets.

/ = Minimum Relative Response Factor

**CALIBRATION OUTLIER
SEMVOLATILE TCL COMPOUNDS
(Page 1 of 2)**

Page 14

CASE\SAS#:

COLUMN:

LABORATORY: SWICK

SITE NAME: Glenwood Coop Dump

Reviewer's Init/Date: JAC/6-30-95

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

- = These flags should be applied to the analytics on the sample data sheets.
 - # = Minimum Relative Response Factor

P17 of 14

**CALIBRATION OUTLIER
SEMOVOLATILE TCL COMPOUNDS**
(Page 2 of 2)

CASE/SASS: 23669
COLUMN:

LABORATORY: SLIK
SITE NAME: Electro Corp. of America

Instrument#	Initial Cal.	Contin. Cal.				
Date/Time:	6/20/95 0813	6/20/95	1/22	6/21/95 0859		
	#	R	%d	*	R	%d
Dichethylphthalate	0.01					
4-Chlorophenyl-phenylether	0.40					
Fluorene	0.90					
4-Nitroaniline	0.01	0.283		0.184	35.1	J 0.299
4,6-Dinitro-2-methylphenol	0.01					
N-nitrosodiphenylamine	0.01					
4-Bromophenyl-phenylether	0.10					
Hexachlorobenzene	0.10					
Pentachlorophenol	0.05					
Phenanthrene	0.70					
Anthracene	0.70					
Carbazole						
Di-n-butylphthalate	0.01					
Fluoranthene	0.60	10.888		0.619	30.3	J 10.881
Pyrene	0.60	11.502		1.884	25.4	J 11.399
Butylbenzylphthalate	0.01					
3,3'-Dichlorobenzidine	0.01					
Benzo(a)anthracene	0.80					
Chrysene	0.70					
bis(2-Ethylhexyl)phthalate	0.01					
Di-n-octyl phthalate	0.01					
Benzo(b)fluoranthene	0.70					
Benzo(k)fluoranthene	0.70					
Benzo(a)pyrene	0.70					
Indeno(1,2,3-cd)pyrene	0.50					
Dibenz(a,h)anthracene	0.40					
Benzo(g,h,i)perylene	0.50					
Nitrobenzene-d5	0.01					
2-Fluorobiphenyl	0.70					
Terphenyl-d14	0.50					
Phenol-d5	0.80					
2-Fluorophenol	0.60					
2,4,6-Tribromophenol	0.01					
2-Chlorophenol-d4						
1,2-Dichlorobenzene-d4						

Reviewer's Init/Date: JQ (6-30-93)

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

- = These flags should be applied to the analytes on the sample data sheets.
- / = Minimum Relative Response Factor

**CALIBRATION OUTLIER
PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)**

Pg. 13 of 14

~~PISAS#:~~ 23669
JMN: DB-17

LABORATORY: SWOK
SITE NAME: Colter Corp. Damp

Affected samples:

PBLKWU	EABE1-3
PRLIKSH	EARE2M35MSD
EAPC7	EABD9
	EAPC1-6

Reviewer's Init/Date: JCL 630-95

* These flags should be applied to the analytes on the sample lab sheets.
Minimum Relative Response Factor

**CALIBRATION OUTLIER
PESTICIDE/PCB TCL COMPOUNDS**
(Page 1 of 1)

Pg. 14 of 14

SAS#:23669
JMN:DB1701

LABORATORY: SWICK
SITE NAME: Golox Corp. Dump

Affected samples:

PBLK W V	EABE 1-2	
PBLK S H	EABE 2 M1+M2 X	
EAPC 7	EABD 9	
	EAPC 1-6	

Reviewer's Init/Date: JAC/6-30-95

- * These flags should be applied to the analytics on the sample data sheets.

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utilized in this document, the following code letters and associated definitions are provided:

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL).

- U** Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.
- J** Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound but the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.
- R** Indicates the data are unusable. (Note: The analyte may or may not be present.)
- N** Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.
- P** Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.
- C** Indicates pesticide results that have been confirmed by GC/MS.
- B** Indicates the analyte is detected in the associated blank as well as the sample.
- E** Indicates compounds whose concentrations exceed the calibration range of the instrument.
- D** Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.
- A** Indicates tentatively identified compounds that are suspected to be aldol condensation products.
- G** Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.
- L** Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.
- T** Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.
- X, Y, Z** are reserved for laboratory defined flags.

TABLE T
(For Low Concentration water)

VOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

<u>1,4-Difluorobenzene</u>	<u>Chlorobenzene-d₄</u>	<u>1,4-Dichlorobenzene-d₄</u>
Chloromethane	4-Methyl-2-pentanone	Bromoform
Bromomethane	1,1,1-Trichloroethane	1,2-Dibromo-3-chloropropane
Vinyl chloride	Carbon tetrachloride	1,2-Dichlorobenzene
Chloroethane	Bromodichloromethane	1,3-Dichlorobenzene
Methylene chloride	1,2-Dichloropropene	1,4-Dichlorobenzene
Acetone	trans-1,3-Dichloropropene	
Carbon disulfide	Trichloroethene	
1,1-Dichloroethene	Dibromochloromethane	
1,1-Dichloroethane	1,1,2-Trichloroethane	
4-Bromofluorobenzene	Benzene	
Chloroform	cis-1,3-Dichloropropene	
1,2-Dichloroethane	Chlorobenzene	
1,2-Dichloroethane-d ₄ (surr,smc)	1,2-Dibromomethane	
2-Butanone	Ethylbenzene	
Bromochloromethane	2-Hexanone	
cis-1,2-Dichloroethene	Styrene	
trans-1,2-Dichloroethene	Xylene(total)	
	Toluene	
	Tetrachloroethene	
	1,1,2,2-Tetrachloroethane	

SEMOVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

<u>1,4-Dichlorobenzene-d₄</u>	<u>Naphthalene-d₈</u>	<u>Acenaphthene-d₁₀</u>	<u>Phenanthrene-d₁₀</u>	<u>Chrysene-d₁₂</u>	<u>Perylene-d₁₂</u>
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl phthalate
bis(2-chloroethyl)ether	Isophorone	2,4,6-Trichlorophenol	N-nitroso-di-phenylamine	butylbenzyl phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	1,2-Diphenylhydrazine	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
2-Methylphenol	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl phenyl ether	Benzo(a)anthracene	Benzo(a)pyrene
bis(2-chloroisopropyl)ether	2-Methylnaphthalene	2-Nitroaniline	Hexachlorobenzene	bis(2-Ethylhexyl)phthalate	Indeno(1,2,3-cd)pyrene
4-Methylphenol	bis(2-Chloroethoxy)methane	Dimethylphthalate	Pentachlorophenol	Chrysene	Dibenzo(a,h)anthracene
N-nitroso-di-n-propylamine	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d ₁₀ (surr)	Benzo(g,h,i)perylene
2-Fluorophenol(surr)	Nitrobenzene-d ₈ (surr)	3-Nitroaniline	Anthracene		
Phenol-d ₈ (surr)	4-Chloroaniline	Acenaphthene	Di-n-butyl phthalate		
	Hexachlorobutadiene	2,4-Dinitrophenol	Fluoranthene		
	4-Chloro-3-methylphenol	4-Nitrophenol			
		Dibenzofuran			
		2,4-Dinitrotoluene			
		2,6-Dinitrotoluene			
		Diethyl phthalate			
		4-Chlorophenyl phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl(surr)			
		2,4,6-Tribromophenol(surr)			

(surr) - surrogate



United States Environmental Protection Agency
Contract Laboratory Program

**Organic Traffic Report
& Chain of Custody Record
(For Organic CLP Analysis)**

SAS No.
(if applicable)

Case No.

23669

1. Matrix (Enter in Column A)		2. Preservative (Enter in Column D)		2. Region No.		Sampling Co.		4. Date Shipped		Carrier		6. Date Received -- Received by:				
				5		ICPA		6/15/95		Feather Express		6-16-95 K Hollis				
1. Surface Water		1. HCl		Sampler (Name)				Airbill Number				Laboratory Contract Number				
2. Ground Water		2. HNO3		Peter Sorenson				4413933731				Unit Price				
3. Leachate		3. NaHSO4		Sampler Signature				5. Ship To		Southwest Labs of Oklahoma		7. Transfer to:				
4. Field QC		4. H2SO4		Peter Sorenson						1700 West Albany		Date Received				
5. Soil/Sediment		5. Ice only								Suite C		Received by				
6. Oil (High only)		6. Other (Specify in Column D)								Broken Arrow, OK 74012		Contract Number				
7. Waste (High only)		N. Not preserved						ATTN: Robert Harris (918-251-2858)				Price				
CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E RAS Analysis				F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K High Phases		
					VOA	BNA	PC	High only						ARO/TOX	Water-Solids	Water-Miscible-Liq.
EAPC6	5	L	G	5	XX	003280				X206	6/15/95	MEADL2	J			
EAPC6	5	L	G	5	X	003281,2				X206	6/15/95	MEADL2	J			
EABD9	5	L	G	5	XX	003283				X207	6/15/95	MEADL1	J			
EABD9	5	L	G	5	X	003284,5				X207	6/15/95	MEADL1	J			
EABE1	5	L	G	5	XX	003286				X208	6/15/95	MEADL2	J			
EABE1	5	L	G	5	X	003287,8				X208	6/15/95	MEADL2	J			
EABE2	5	L	G	5	XX	003289				X209	6/15/95	MEADL3	J			
EABE2	5	L	G	5	X	003290,1				X209	6/15/95	MEADL3	J			
EABE3	5	L	G	5	XX	003292				X210	6/15/95	MEADL4	J			
EABE3	5	L	G	5	X	003293,4				X210	6/15/95	MEADL4	J			
Shipment for Case Complete? (Y/N)	Page	Sample(s) to be Used for Laboratory QC						Additional Sampler Signatures			Chain of Custody Seal Number(s)					
Y	2 of 2	EABE2									149569					

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter Sorenson					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	6/16/95 Date / Time	Remarks	Is custody seal intact? Y/N/none
		K Hollis	1000		



United States Environmental Protection Agency
Contract Laboratory Program

**Organic Traffic Report
& Chain of Custody Record
(For Organic CLP Analysis)**

SAS No.
(If applicable)

Case No.

23669

1. Matrix (Enter in Column A)		2. Preservative (Enter in Column D)		2. Region No.		Sampling Co.		4. Date Shipped		Carrier		6. Date Received -- Received by:		
				5		IEPA		6/15/95		Federal Express		6-16-95 K. Hollis		
1. Surface Water		1. HCl		Sampler (Name)				Airbill Number				Laboratory Contract Number		
2. Ground Water		2. HNO3		Peter Sorenson				4413933731				Unit Price		
3. Leachate		3. NaHSO4		Sampler Signature				5. Ship To		Southwest Labs of Oklahoma		7. Transfer to:		
4. Field QC		4. H2SO4								1700 West Albany				
5. Soil/Sediment		5. Ice only								Suite C				
6. Oil (High only)		6. Other (Specify in Column D)								Broken Arrow, OK 74012				
7. Waste (High only)		N. Not preserved								ATTN: Robert Harris (918-251-2858)				
CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E RAS Analysis		F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K High Phases		
					VOA	BNA						P	High only	REM
EAPC1	5	L	G	5	XX		003265	X201	6/15/95	ME2P87	7			
EAPC1	5	L	G	5	X		003266,7	X201	6/15/95	ME2P87	7			
EAPC2	5	I	G	5	XX		003268	X202	6/15/95	ME2P88	7			
EAPC2	5	L	G	5	X		003269,70	X202	6/15/95	ME2P88	7			
EAPC3	5	L	G	5	XX		003271	X203	6/15/95	ME2P89	7			
EAPC3	5	L	G	5	X		003272,3	X203	6/15/95	ME2P89	7			
EAPC4	5	L	G	5	XX		003274	X204	6/15/95	ME2P90	7			
EAPC4	5	L	G	5	X		003275,6	X204	6/15/95	ME2P90	7			
EAPC5	5	L	G	5	XX		003277	X205	6/15/95	ME2P91	7			
EAPC5	5	L	G	5	X		003278,9	X205	6/15/95	ME2P91	7			
Shipment for Case Complete? (Y/N)	Page	Sample(s) to be Used for Laboratory QC				Additional Sampler Signatures				Chain of Custody Seal Number(s)				
Y	1 of 2	EABF2								149569				

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature) <i>Peter Sorenson</i>	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <i>K. Hollis</i>	Date / Time	Remarks	Is custody seal intact? Y/N/none

DISTRIBUTION: Blue - Region Copy
White - Lab Copy for Return to Region

Pink - SMO Copy
Yellow - Lab Copy for Return to SMO

EABD9

EPA Form 9110-2

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS



United States Environmental Protection Agency
Contract Laboratory Program

**Organic Traffic Report
& Chain of Custody Record
(For Organic CLP Analysis)**

SAS No.
(if applicable)

Case No.

23669

1. Matrix <i>(Enter in Column A)</i>	2. Preservative <i>(Enter in Column D)</i>	2. Region No.	Sampling Co.	4. Date Shipped	Carrier	6. Date Received -- Received by:						
1. Surface Water	5. HCl	5	EPA	6/15/95	Federal Express	6-16-95	<i>K. Hollis</i>					
2. Ground Water	2. HNO3	Sampler (Name)		Airbill Number		Laboratory Contract Number	Unit Price					
3. Leachate	3. NaHSO4	<i>C. J. Scieszka</i>		4413933753								
4. Field QC	4. H2SO4	Sampler Signature		5. Ship To		7. Transfer to:	Date Received					
5. Soil/Sediment	5. Ice only			Southwest Labs of Oklahoma, 1700 West Albany Suite C Broken Arrow, OK 74012		Received by						
6. Oil (High only)	6. Other <i>(Specify In Column D)</i>			ATTN: Robert Harris (918-251-2858)		Contract Number	Price					
7. Waste <i>(High only)</i>	N. Not preserved											
8. Other <i>(Specify In Column A)</i>												
CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E RAS Analysis		F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K High Phases Solids Water Wastewater Water Inorg. Liqu.
EAPC7	4	L	6	5 X	VOA	BNA	R P A ARO/TOX	6-101	6/15/95	MEADL7		
EAPC7	4	L	6	5 X	VOA	BNA	R P A ARO/TOX	6-101	6/15/95	MEADL7		
EAPC7	4	L	6	5 X	VOA	BNA	R P A ARO/TOX	6-101	6/15/95	MEADL7		
EAPC8	4	L	6	5 X	VOA	BNA	R P A ARO/TOX	6-101	6/15/95	MEADL7		
Shipment for Case Complete? (Y/N)	Page 1 of 1	Sample(s) to be Used for Laboratory QC				Additional Sampler Signatures			Chain of Custody Seal Number(s) 149570			

* SOG Final Sample

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
<i>C. J. Scieszka</i>	6/15/95 - 6:15 P				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	6/16/95 Date / Time	Remarks	Is custody seal intact? Y/N/none
		<i>K. Hollis</i>	6/16/95 1000		

421-0124 REV. 3/84

DISTRIBUTION: Blue - Region Copy
White - Lab Copy for Return to Region

Pink - SMO Copy
Yellow Lab Copy for Return to SMC

EABD9
EPA Form 9110-2

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

358C 10

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EABD9

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.01

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16365.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 39 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	16	U
74-83-9-----	Bromomethane	16	U
75-01-4-----	Vinyl Chloride	16	U
75-00-3-----	Chloroethane	16	U
75-09-2-----	Methylene Chloride	10	J
67-64-1-----	Acetone	65	
75-15-0-----	Carbon Disulfide	16	U
75-35-4-----	1,1-Dichloroethene	16	U
75-34-3-----	1,1-Dichloroethane	16	U
540-59-0-----	1,2-Dichloroethene (total)	16	U
67-66-3-----	Chloroform	16	U
107-06-2-----	1,2-Dichloroethane	16	U
78-93-3-----	2-Butanone	16	U
71-55-6-----	1,1,1-Trichloroethane	16	U
56-23-5-----	Carbon Tetrachloride	16	U
75-27-4-----	Bromodichloromethane	16	U
78-87-5-----	1,2-Dichloropropane	16	U
10061-01-5-----	cis-1,3-Dichloropropene	16	U
79-01-6-----	Trichloroethene	16	U
124-48-1-----	Dibromochloromethane	16	U
79-00-5-----	1,1,2-Trichloroethane	16	U
71-43-2-----	Benzene	16	U
10061-02-6-----	trans-1,3-Dichloropropene	16	U
75-25-2-----	Bromoform	16	U
108-10-1-----	4-Methyl-2-Pentanone	16	U
591-78-6-----	2-Hexanone	16	U
127-18-4-----	Tetrachloroethene	16	U
79-34-5-----	1,1,2,2-Tetrachloroethane	16	U
108-88-3-----	Toluene	2	J
108-90-7-----	Chlorobenzene	16	U
100-41-4-----	Ethylbenzene	16	U
100-42-5-----	Styrene	16	U
1330-20-7-----	Xylene (Total)	16	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EABD9

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.01

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16365.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 39 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE1

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.02

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16366.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 33 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	15	U
74-83-9-----	Bromomethane	15	U
75-01-4-----	Vinyl Chloride	15	U
75-00-3-----	Chloroethane	15	U
75-09-2-----	Methylene Chloride	11	J
67-64-1-----	Acetone	30	
75-15-0-----	Carbon Disulfide	15	U
75-35-4-----	1,1-Dichloroethene	15	U
75-34-3-----	1,1-Dichloroethane	15	U
540-59-0-----	1,2-Dichloroethene (total)	15	U
67-66-3-----	Chloroform	15	U
107-06-2-----	1,2-Dichloroethane	15	U
78-93-3-----	2-Butanone	15	U
71-55-6-----	1,1,1-Trichloroethane	15	U
56-23-5-----	Carbon Tetrachloride	15	U
75-27-4-----	Bromodichloromethane	15	U
78-87-5-----	1,2-Dichloropropane	15	U
10061-01-5-----	cis-1,3-Dichloropropene	15	U
79-01-6-----	Trichloroethene	15	U
124-48-1-----	Dibromochloromethane	15	U
79-00-5-----	1,1,2-Trichloroethane	15	U
71-43-2-----	Benzene	15	U
10061-02-6-----	trans-1,3-Dichloropropene	15	U
75-25-2-----	Bromoform	15	U
108-10-1-----	4-Methyl-2-Pentanone	15	U
591-78-6-----	2-Hexanone	15	U
127-18-4-----	Tetrachloroethene	15	U
79-34-5-----	1,1,2,2-Tetrachloroethane	15	U
108-88-3-----	Toluene	15	U
108-90-7-----	Chlorobenzene	15	U
100-41-4-----	Ethylbenzene	15	U
100-42-5-----	Styrene	15	U
1330-20-7-----	Xylene (Total)	15	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EABE1

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.02

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16366.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. 33

Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____(uL)

Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EABE2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.03

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16367.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. 38

Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

74-87-3-----Chloromethane	16	U
74-83-9-----Bromomethane	16	U
75-01-4-----Vinyl Chloride	16	U
75-00-3-----Chloroethane	16	U
75-09-2-----Methylene Chloride	13	J
67-64-1-----Acetone	47	
75-15-0-----Carbon Disulfide	16	U
75-35-4-----1,1-Dichloroethene	16	U
75-34-3-----1,1-Dichloroethane	16	U
540-59-0-----1,2-Dichloroethene (total)	16	U
67-66-3-----Chloroform	16	U
107-06-2-----1,2-Dichloroethane	16	U
78-93-3-----2-Butanone	16	U
71-55-6-----1,1,1-Trichloroethane	7	J
56-23-5-----Carbon Tetrachloride	16	U
75-27-4-----Bromodichloromethane	16	U
78-87-5-----1,2-Dichloropropane	16	U
10061-01-5-----cis-1,3-Dichloropropene	16	U
79-01-6-----Trichloroethene	16	U
124-48-1-----Dibromochloromethane	16	U
79-00-5-----1,1,2-Trichloroethane	16	U
71-43-2-----Benzene	16	U
10061-02-6-----trans-1,3-Dichloropropene	16	U
75-25-2-----Bromoform	16	U
108-10-1-----4-Methyl-2-Pentanone	16	U
591-78-6-----2-Hexanone	16	U
127-18-4-----Tetrachloroethene	16	U
79-34-5-----1,1,2,2-Tetrachloroethane	16	U
108-88-3-----Toluene	16	U
108-90-7-----Chlorobenzene	16	U
100-41-4-----Ethylbenzene	16	U
100-42-5-----Styrene	16	U
1330-20-7-----Xylene (Total)	16	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EABE2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16367.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 38 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE3

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.04

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16370.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 17 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	12	U
74-83-9-----	Bromomethane	12	U
75-01-4-----	Vinyl Chloride	12	U
75-00-3-----	Chloroethane	12	U
75-09-2-----	Methylene Chloride	9	J
67-64-1-----	Acetone	12	U
75-15-0-----	Carbon Disulfide	12	U
75-35-4-----	1,1-Dichloroethene	12	U
75-34-3-----	1,1-Dichloroethane	12	U
540-59-0-----	1,2-Dichloroethene (total)	12	U
67-66-3-----	Chloroform	12	U
107-06-2-----	1,2-Dichloroethane	12	U
78-93-3-----	2-Butanone	12	U
71-55-6-----	1,1,1-Trichloroethane	13	U
56-23-5-----	Carbon Tetrachloride	12	U
75-27-4-----	Bromodichloromethane	12	U
78-87-5-----	1,2-Dichloropropane	12	U
10061-01-5-----	cis-1,3-Dichloropropene	12	U
79-01-6-----	Trichloroethene	12	U
124-48-1-----	Dibromochloromethane	12	U
79-00-5-----	1,1,2-Trichloroethane	12	U
71-43-2-----	Benzene	12	U
10061-02-6-----	trans-1,3-Dichloropropene	12	U
75-25-2-----	Bromoform	12	U
108-10-1-----	4-Methyl-2-Pentanone	12	U
591-78-6-----	2-Hexanone	12	U
127-18-4-----	Tetrachloroethene	12	U
79-34-5-----	1,1,2,2-Tetrachloroethane	12	U
108-88-3-----	Toluene	12	U
108-90-7-----	Chlorobenzene	12	U
100-41-4-----	Ethylbenzene	12	U
100-42-5-----	Styrene	12	U
1330-20-7-----	Xylene (Total)	12	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EABE3

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.04

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16370.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 17 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC1

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.05

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16371.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. 32

Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	15	U
74-83-9-----	Bromomethane	15	U
75-01-4-----	Vinyl Chloride	15	U
75-00-3-----	Chloroethane	15	U
75-09-2-----	Methylene Chloride	10	J
67-64-1-----	Acetone	15	U
75-15-0-----	Carbon Disulfide	15	U
75-35-4-----	1,1-Dichloroethene	15	U
75-34-3-----	1,1-Dichloroethane	15	U
540-59-0-----	1,2-Dichloroethene (total)	15	U
67-66-3-----	Chloroform	15	U
107-06-2-----	1,2-Dichloroethane	15	U
78-93-3-----	2-Butanone	15	U
71-55-6-----	1,1,1-Trichloroethane	15	U
56-23-5-----	Carbon Tetrachloride	15	U
75-27-4-----	Bromodichloromethane	15	U
78-87-5-----	1,2-Dichloropropane	15	U
10061-01-5-----	cis-1,3-Dichloropropene	15	U
79-01-6-----	Trichloroethene	15	U
124-48-1-----	Dibromochloromethane	15	U
79-00-5-----	1,1,2-Trichloroethane	15	U
71-43-2-----	Benzene	15	U
10061-02-6-----	trans-1,3-Dichloropropene	15	U
75-25-2-----	Bromoform	15	U
108-10-1-----	4-Methyl-2-Pentanone	15	U
591-78-6-----	2-Hexanone	15	U
127-18-4-----	Tetrachloroethene	15	U
79-34-5-----	1,1,2,2-Tetrachloroethane	15	U
108-88-3-----	Toluene	15	U
108-90-7-----	Chlorobenzene	15	U
100-41-4-----	Ethylbenzene	15	U
100-42-5-----	Styrene	15	U
1330-20-7-----	Xylene (Total)	15	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC1

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.05

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16371.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 32 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC1RE

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.05RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16380.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 32 Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	15	U
74-83-9-----	Bromomethane	15	U
75-01-4-----	Vinyl Chloride	15	U
75-00-3-----	Chloroethane	15	U
75-09-2-----	Methylene Chloride	9	J
67-64-1-----	Acetone	15	U
75-15-0-----	Carbon Disulfide	15	U
75-35-4-----	1,1-Dichloroethene	15	U
75-34-3-----	1,1-Dichloroethane	15	U
540-59-0-----	1,2-Dichloroethene (total)	15	U
67-66-3-----	Chloroform	15	U
107-06-2-----	1,2-Dichloroethane	15	U
78-93-3-----	2-Butanone	15	U
71-55-6-----	1,1,1-Trichloroethane	14	J
56-23-5-----	Carbon Tetrachloride	15	U
75-27-4-----	Bromodichloromethane	15	U
78-87-5-----	1,2-Dichloropropane	15	U
10061-01-5-----	cis-1,3-Dichloropropene	15	U
79-01-6-----	Trichloroethene	15	U
124-48-1-----	Dibromochloromethane	15	U
79-00-5-----	1,1,2-Trichloroethane	15	U
71-43-2-----	Benzene	15	U
10061-02-6-----	trans-1,3-Dichloropropene	15	U
75-25-2-----	Bromoform	15	U
108-10-1-----	4-Methyl-2-Pentanone	15	U
591-78-6-----	2-Hexanone	15	U
127-18-4-----	Tetrachloroethene	15	U
79-34-5-----	1,1,2,2-Tetrachloroethane	15	U
108-88-3-----	Toluene	15	U
108-90-7-----	Chlorobenzene	15	U
100-41-4-----	Ethylbenzene	15	U
100-42-5-----	Styrene	15	U
1330-20-7-----	Xylene (Total)	15	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC1RE

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.05RA

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16380.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. 32

Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC2

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.06

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16389.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. 41

Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____(uL)

Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

74-87-3-----	Chloromethane	17	U
74-83-9-----	Bromomethane	17	U
75-01-4-----	Vinyl Chloride	17	U
75-00-3-----	Chloroethane	17	U
75-09-2-----	Methylene Chloride	17	U
67-64-1-----	Acetone	17	U
75-15-0-----	Carbon Disulfide	17	U
75-35-4-----	1,1-Dichloroethene	17	U
75-34-3-----	1,1-Dichloroethane	17	U
540-59-0-----	1,2-Dichloroethene (total)	17	U
67-66-3-----	Chloroform	17	U
107-06-2-----	1,2-Dichloroethane	17	U
78-93-3-----	2-Butanone	17	U
71-55-6-----	1,1,1-Trichloroethane	17	U
56-23-5-----	Carbon Tetrachloride	17	U
75-27-4-----	Bromodichloromethane	17	U
78-87-5-----	1,2-Dichloropropane	17	U
10061-01-5-----	cis-1,3-Dichloropropene	17	U
79-01-6-----	Trichloroethene	17	U
124-48-1-----	Dibromochloromethane	17	U
79-00-5-----	1,1,2-Trichloroethane	17	U
71-43-2-----	Benzene	17	U
10061-02-6-----	trans-1,3-Dichloropropene	17	U
75-25-2-----	Bromoform	17	U
108-10-1-----	4-Methyl-2-Pentanone	17	U
591-78-6-----	2-Hexanone	17	U
127-18-4-----	Tetrachloroethene	17	U
79-34-5-----	1,1,2,2-Tetrachloroethane	17	U
108-88-3-----	Toluene	28	
108-90-7-----	Chlorobenzene	17	U
100-41-4-----	Ethylbenzene	17	U
100-42-5-----	Styrene	17	U
1330-20-7-----	Xylene (Total)	17	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.06

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16389.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. 41

Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____(uL)

Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC3

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.07

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16390.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. 50

Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----Chloromethane	20	U
74-83-9-----Bromomethane	20	U
75-01-4-----Vinyl Chloride	20	U
75-00-3-----Chloroethane	20	U
75-09-2-----Methylene Chloride	8	J
67-64-1-----Acetone	130	
75-15-0-----Carbon Disulfide	20	U
75-35-4-----1,1-Dichloroethene	20	U
75-34-3-----1,1-Dichloroethane	20	U
540-59-0-----1,2-Dichloroethene (total)	20	U
67-66-3-----Chloroform	20	U
107-06-2-----1,2-Dichloroethane	20	U
78-93-3-----2-Butanone	20	U
71-55-6-----1,1,1-Trichloroethane	20	U
56-23-5-----Carbon Tetrachloride	20	U
75-27-4-----Bromodichloromethane	20	U
78-87-5-----1,2-Dichloropropane	20	U
10061-01-5-----cis-1,3-Dichloropropene	20	U
79-01-6-----Trichloroethene	20	U
124-48-1-----Dibromochloromethane	20	U
79-00-5-----1,1,2-Trichloroethane	20	U
71-43-2-----Benzene	20	U
10061-02-6-----trans-1,3-Dichloropropene	20	U
75-25-2-----Bromoform	20	U
108-10-1-----4-Methyl-2-Pentanone	20	U
591-78-6-----2-Hexanone	20	U
127-18-4-----Tetrachloroethene	20	U
79-34-5-----1,1,2,2-Tetrachloroethane	20	U
108-88-3-----Toluene	7	J
108-90-7-----Chlorobenzene	20	U
100-41-4-----Ethylbenzene	20	U
100-42-5-----Styrene	20	U
1330-20-7-----Xylene (Total)	20	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC3

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.07

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16390.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 50 Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAPC4

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.08

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16391.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 43 Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3-----	Chloromethane	18	U
74-83-9-----	Bromomethane	18	U
75-01-4-----	Vinyl Chloride	18	U
75-00-3-----	Chloroethane	18	U
75-09-2-----	Methylene Chloride	6	J
67-64-1-----	Acetone	18	U
75-15-0-----	Carbon Disulfide	18	U
75-35-4-----	1,1-Dichloroethene	18	U
75-34-3-----	1,1-Dichloroethane	18	U
540-59-0-----	1,2-Dichloroethene (total)	18	U
67-66-3-----	Chloroform	18	U
107-06-2-----	1,2-Dichloroethane	18	U
78-93-3-----	2-Butanone	18	U
71-55-6-----	1,1,1-Trichloroethane	47	
56-23-5-----	Carbon Tetrachloride	18	U
75-27-4-----	Bromodichloromethane	18	U
78-87-5-----	1,2-Dichloropropane	18	U
10061-01-5-----	cis-1,3-Dichloropropene	18	U
79-01-6-----	Trichloroethene	18	U
124-48-1-----	Dibromochloromethane	18	U
79-00-5-----	1,1,2-Trichloroethane	18	U
71-43-2-----	Benzene	18	U
10061-02-6-----	trans-1,3-Dichloropropene	18	U
75-25-2-----	Bromoform	18	U
108-10-1-----	4-Methyl-2-Pentanone	18	U
591-78-6-----	2-Hexanone	18	U
127-18-4-----	Tetrachloroethene	18	U
79-34-5-----	1,1,2,2-Tetrachloroethane	18	U
108-88-3-----	Toluene	18	U
108-90-7-----	Chlorobenzene	18	U
100-41-4-----	Ethylbenzene	18	U
100-42-5-----	Styrene	18	U
1330-20-7-----	Xylene (Total)	18	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC4

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.08

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16391.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. 43

Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC5

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16375.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 36 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----Chloromethane	16	U
74-83-9-----Bromomethane	16	U
75-01-4-----Vinyl Chloride	16	U
75-00-3-----Chloroethane	16	U
75-09-2-----Methylene Chloride	11	J
67-64-1-----Acetone	16	U
75-15-0-----Carbon Disulfide	16	U
75-35-4-----1,1-Dichloroethene	16	U
75-34-3-----1,1-Dichloroethane	16	U
540-59-0-----1,2-Dichloroethene (total)	16	U
67-66-3-----Chloroform	16	U
107-06-2-----1,2-Dichloroethane	16	U
78-93-3-----2-Butanone	16	U
71-55-6-----1,1,1-Trichloroethane	16	J
56-23-5-----Carbon Tetrachloride	16	U
75-27-4-----Bromodichloromethane	16	U
78-87-5-----1,2-Dichloropropane	16	U
10061-01-5-----cis-1,3-Dichloropropene	16	U
79-01-6-----Trichloroethene	16	U
124-48-1-----Dibromochloromethane	16	U
79-00-5-----1,1,2-Trichloroethane	16	U
71-43-2-----Benzene	16	U
10061-02-6-----trans-1,3-Dichloropropene	16	U
75-25-2-----Bromoform	16	U
108-10-1-----4-Methyl-2-Pentanone	16	U
591-78-6-----2-Hexanone	16	U
127-18-4-----Tetrachloroethene	16	U
79-34-5-----1,1,2,2-Tetrachloroethane	16	U
108-88-3-----Toluene	16	U
108-90-7-----Chlorobenzene	16	U
100-41-4-----Ethylbenzene	16	U
100-42-5-----Styrene	16	U
1330-20-7-----Xylene (Total)	16	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC5

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16375.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 36 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC5RE

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.09RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16392.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 36 Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

74-87-3-----	Chloromethane	16	U
74-83-9-----	Bromomethane	16	U
75-01-4-----	Vinyl Chloride	16	U
75-00-3-----	Chloroethane	16	U
75-09-2-----	Methylene Chloride	5	J
67-64-1-----	Acetone	16	U
75-15-0-----	Carbon Disulfide	16	U
75-35-4-----	1,1-Dichloroethene	16	U
75-34-3-----	1,1-Dichloroethane	16	U
540-59-0-----	1,2-Dichloroethene (total)	16	U
67-66-3-----	Chloroform	16	U
107-06-2-----	1,2-Dichloroethane	16	U
78-93-3-----	2-Butanone	16	U
71-55-6-----	1,1,1-Trichloroethane	9	J
56-23-5-----	Carbon Tetrachloride	16	U
75-27-4-----	Bromodichloromethane	16	U
78-87-5-----	1,2-Dichloropropane	16	U
10061-01-5-----	cis-1,3-Dichloropropene	16	U
79-01-6-----	Trichloroethene	16	U
124-48-1-----	Dibromochloromethane	16	U
79-00-5-----	1,1,2-Trichloroethane	16	U
71-43-2-----	Benzene	16	U
10061-02-6-----	trans-1,3-Dichloropropene	16	U
75-25-2-----	Bromoform	16	U
108-10-1-----	4-Methyl-2-Pentanone	16	U
591-78-6-----	2-Hexanone	16	U
127-18-4-----	Tetrachloroethene	16	U
79-34-5-----	1,1,2,2-Tetrachloroethane	16	U
108-88-3-----	Toluene	16	U
108-90-7-----	Chlorobenzene	16	U
100-41-4-----	Ethylbenzene	16	U
100-42-5-----	Styrene	16	U
1330-20-7-----	Xylene (Total)	16	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC5RE

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.09RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16392.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 36 Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAPC6

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.10

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L16376.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. 35

Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

74-87-3-----Chloromethane	15	U
74-83-9-----Bromomethane	15	U
75-01-4-----Vinyl Chloride	15	U
75-00-3-----Chloroethane	15	U
75-09-2-----Methylene Chloride	9	J
67-64-1-----Acetone	15	U
75-15-0-----Carbon Disulfide	15	U
75-35-4-----1,1-Dichloroethene	15	U
75-34-3-----1,1-Dichloroethane	15	U
540-59-0-----1,2-Dichloroethene (total)	15	U
67-66-3-----Chloroform	15	U
107-06-2-----1,2-Dichloroethane	15	U
78-93-3-----2-Butanone	15	U
71-55-6-----1,1,1-Trichloroethane	15	U
56-23-5-----Carbon Tetrachloride	15	U
75-27-4-----Bromodichloromethane	15	U
78-87-5-----1,2-Dichloropropane	15	U
10061-01-5-----cis-1,3-Dichloropropene	15	U
79-01-6-----Trichloroethene	15	U
124-48-1-----Dibromochloromethane	15	U
79-00-5-----1,1,2-Trichloroethane	15	U
71-43-2-----Benzene	15	U
10061-02-6-----trans-1,3-Dichloropropene	15	U
75-25-2-----Bromoform	15	U
108-10-1-----4-Methyl-2-Pentanone	15	U
591-78-6-----2-Hexanone	15	U
127-18-4-----Tetrachloroethene	15	U
79-34-5-----1,1,2,2-Tetrachloroethane	15	U
108-88-3-----Toluene	15	U
108-90-7-----Chlorobenzene	15	U
100-41-4-----Ethylbenzene	15	U
100-42-5-----Styrene	15	U
1330-20-7-----Xylene (Total)	15	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC6

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16376.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 35 Date Analyzed: 06/19/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC6RE

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.10RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16393.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 35 Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

74-87-3-----Chloromethane	15	U
74-83-9-----Bromomethane	15	U
75-01-4-----Vinyl Chloride	15	U
75-00-3-----Chloroethane	15	U
75-09-2-----Methylene Chloride	7	J
67-64-1-----Acetone	15	U
75-15-0-----Carbon Disulfide	15	U
75-35-4-----1,1-Dichloroethene	15	U
75-34-3-----1,1-Dichloroethane	15	U
540-59-0-----1,2-Dichloroethene (total)	15	U
67-66-3-----Chloroform	15	U
107-06-2-----1,2-Dichloroethane	15	U
78-93-3-----2-Butanone	15	U
71-55-6-----1,1,1-Trichloroethane	15	U
56-23-5-----Carbon Tetrachloride	15	U
75-27-4-----Bromodichloromethane	15	U
78-87-5-----1,2-Dichloropropane	15	U
10061-01-5-----cis-1,3-Dichloropropene	15	U
79-01-6-----Trichloroethene	15	U
124-48-1-----Dibromochloromethane	15	U
79-00-5-----1,1,2-Trichloroethane	15	U
71-43-2-----Benzene	15	U
10061-02-6-----trans-1,3-Dichloropropene	15	U
75-25-2-----Bromoform	15	U
108-10-1-----4-Methyl-2-Pentanone	15	U
591-78-6-----2-Hexanone	15	U
127-18-4-----Tetrachloroethene	15	U
79-34-5-----1,1,2,2-Tetrachloroethane	15	U
108-88-3-----Toluene	15	U
108-90-7-----Chlorobenzene	15	U
100-41-4-----Ethylbenzene	15	U
100-42-5-----Styrene	15	U
1330-20-7-----Xylene (Total)	15	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC6RE

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.10RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L16393.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. 35 Date Analyzed: 06/20/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC7

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) WATER

Lab Sample ID: 22611.11

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: L16405.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec.

Date Analyzed: 06/21/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3-----	Chloromethane	10	U
74-83-9-----	Bromomethane	10	U
75-01-4-----	Vinyl Chloride	10	U
75-00-3-----	Chloroethane	10	U
75-09-2-----	Methylene Chloride	11	U
67-64-1-----	Acetone	21	U
75-15-0-----	Carbon Disulfide	10	U
75-35-4-----	1,1-Dichloroethene	10	U
75-34-3-----	1,1-Dichloroethane	10	U
540-59-0-----	1,2-Dichloroethene (total)	10	U
67-66-3-----	Chloroform	10	U
107-06-2-----	1,2-Dichloroethane	10	U
78-93-3-----	2-Butanone	10	U
71-55-6-----	1,1,1-Trichloroethane	10	U
56-23-5-----	Carbon Tetrachloride	10	U
75-27-4-----	Bromodichloromethane	10	U
78-87-5-----	1,2-Dichloropropane	10	U
10061-01-5-----	cis-1,3-Dichloropropene	10	U
79-01-6-----	Trichloroethene	10	U
124-48-1-----	Dibromochloromethane	10	U
79-00-5-----	1,1,2-Trichloroethane	10	U
71-43-2-----	Benzene	10	U
10061-02-6-----	trans-1,3-Dichloropropene	10	U
75-25-2-----	Bromoform	10	U
108-10-1-----	4-Methyl-2-Pentanone	10	U
591-78-6-----	2-Hexanone	10	U
127-18-4-----	Tetrachloroethene	10	U
79-34-5-----	1,1,2,2-Tetrachloroethane	10	U
108-88-3-----	Toluene	10	U
108-90-7-----	Chlorobenzene	10	U
100-41-4-----	Ethylbenzene	10	U
100-42-5-----	Styrene	10	U
1330-20-7-----	Xylene (Total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC7

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) WATER

Lab Sample ID: 22611.11

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: L16405.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec. _____

Date Analyzed: 06/21/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____(uL)

Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAPC8

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) WATER

Lab Sample ID: 22611.12

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: L16406.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: not dec.

Date Analyzed: 06/21/95

GC Column:DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

74-87-3-----Chloromethane	10	U
74-83-9-----Bromomethane	10	U
75-01-4-----Vinyl Chloride	10	U
75-00-3-----Chloroethane	10	U
75-09-2-----Methylene Chloride	4	J
67-64-1-----Acetone	24	
75-15-0-----Carbon Disulfide	10	U
75-35-4-----1,1-Dichloroethene	10	U
75-34-3-----1,1-Dichloroethane	10	U
540-59-0-----1,2-Dichloroethene (total)	10	U
67-66-3-----Chloroform	10	U
107-06-2-----1,2-Dichloroethane	10	U
78-93-3-----2-Butanone	10	U
71-55-6-----1,1,1-Trichloroethane	10	U
56-23-5-----Carbon Tetrachloride	10	U
75-27-4-----Bromodichloromethane	10	U
78-87-5-----1,2-Dichloroproppane	10	U
10061-01-5-----cis-1,3-Dichloropropene	10	U
79-01-6-----Trichloroethene	10	U
124-48-1-----Dibromochloromethane	10	U
79-00-5-----1,1,2-Trichloroethane	10	U
71-43-2-----Benzene	10	U
10061-02-6-----trans-1,3-Dichloropropene	10	U
75-25-2-----Bromoform	10	U
108-10-1-----4-Methyl-2-Pentanone	10	U
591-78-6-----2-Hexanone	10	U
127-18-4-----Tetrachloroethene	10	U
79-34-5-----1,1,2,2-Tetrachloroethane	10	U
108-88-3-----Toluene	10	U
108-90-7-----Chlorobenzene	10	U
100-41-4-----Ethylbenzene	10	U
100-42-5-----Styrene	10	U
1330-20-7-----Xylene (Total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC8

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) WATER Lab Sample ID: 22611.12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L16406.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: not dec. Date Analyzed: 06/21/95

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	EAPC7	83	88	107	79	80	71	80	83	0
02	SBLK2	81	90	114	74	75	86	81	76	0
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QC LIMITS

S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl-d14	(33-141)
S4 (PHL)	= Phenol-d5	(10-110)
S5 (2FP)	= 2-Fluorophenol	(21-110)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)
S7 (2CP)	= 2-Chlorophenol-d4	(33-110) (advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110) (advisory)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Level: (low/med) LOW

EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01 EABD9	78	80	72	68	72	79	75	64	0
02 EABE2	79	94	88	72	76	93	73	68	0
03 SBLK1	73	80	85	74	72	88	75	66	0
04 EABE1	79	87	92	78	81	97	81	69	0
05 EABE2MS	81	90	92	78	76	102	84	70	0
06 EABE2MSD	74	88	90	75	76	103	81	73	0
07 EAPC1	66	75	84	64	65	98	68	56	0
08 EAPC2	73	85	87	76	77	104	79	68	0
09 EAPC3	68	85	80	68	67	98	67	58	0
10 EAPC5	76	85	90	78	72	97	80	65	0
11 EAPC6	69	81	87	74	71	91	77	67	0
12 EAPC4	75	79	66	84	74	84	76	64	0
13 EABE3	75	83	88	66	68	87	70	68	0
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QC LIMITS

S1 (NBZ) = Nitrobenzene-d5	(23-120)
S2 (FBP) = 2-Fluorobiphenyl	(30-115)
S3 (TPH) = Terphenyl-d14	(18-137)
S4 (PHL) = Phenol-d5	(24-113)
S5 (2FP) = 2-Fluorophenol	(25-121)
S6 (TBP) = 2,4,6-Tribromophenol	(19-122)
S7 (2CP) = 2-Chlorophenol-d4	(20-130) (advisory)
S8 (DCB) = 1,2-Dichlorobenzene-d4	(20-130) (advisory)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix Spike - EPA Sample No.: EABE2

Level (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	4000	0	2900	72	26- 90
2-Chlorophenol	4000	0	2900	72	25-102
1,4-Dichlorobenzene	2700	0	1700	63	28-104
N-Nitroso-di-n-prop.(1)	2700	0	2000	74	41-126
1,2,4-Trichlorobenzene	2700	0	1900	70	38-107
4-Chloro-3-Methylphenol	4000	0	3400	85	26-103
Acenaphthene	2700	0	2200	81	31-137
4-Nitrophenol	4000	0	3500	88	11-114
2,4-Dinitrotoluene	2700	0	2200	81	28- 89
Pentachlorophenol	4000	0	2800	70	17-109
Pyrene	2700	250	2600	87	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
Phenol	4000	3000	75	4	35	26- 90
2-Chlorophenol	4000	3100	78	8	50	25-102
1,4-Dichlorobenzene	2700	1700	63	0	27	28-104
N-Nitroso-di-n-prop.(1)	2700	2100	78	5	38	41-126
1,2,4-Trichlorobenzene	2700	2000	74	6	23	38-107
4-Chloro-3-Methylphenol	4000	3300	82	4	33	26-103
Acenaphthene	2700	2200	81	0	19	31-137
4-Nitrophenol	4000	3300	82	7	50	11-114
2,4-Dinitrotoluene	2700	2100	78	4	47	28- 89
Pentachlorophenol	4000	3000	75	7	47	17-109
Pyrene	2700	2600	87	0	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits

RPD: 0 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits

COMMENTS: _____

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

SBLK1

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Lab File ID: V9045.D Lab Sample ID: BL0616SD

Instrument ID: V Date Extracted: 06/16/95

Matrix: (soil/water) SOIL Date Analyzed: 06/20/95

Level: (low/med) LOW Time Analyzed: 1227

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01 EABD9	22611.01	V9026.D	06/19/95
02 EABE2	22611.03	V9028.D	06/19/95
03 EABE1	22611.02	V9046.D	06/20/95
04 EABE2MS	22611.03MS	V9047.D	06/20/95
05 EABE2MSD	22611.03MSD	V9048.D	06/20/95
06 EAPC1	22611.05	V9049.D	06/20/95
07 EAPC2	22611.06	V9050.D	06/20/95
08 EAPC3	22611.07	V9051.D	06/20/95
09 EAPC5	22611.09	V9053.D	06/20/95
10 EAPC6	22611.10	V9054.D	06/20/95
11 EAPC4	22611.08	V9057.D	06/21/95
12 EABE3	22611.04	V9066.D	06/22/95
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COMMENTS: _____

page 01 of 01

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Lab File ID: V9044.D

Lab Sample ID: BL0617WA

Instrument ID: V

Date Extracted: 06/17/95

Matrix: (soil/water) WATER

Date Analyzed: 06/20/95

Level: (low/med) LOW

Time Analyzed: 1154

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01 EAPC7	22611.11	V9023.D	06/19/95
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COMMENTS:

page 01 of 01

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

SBLK1

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: BL0616SD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9045.D

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

108-95-2-----	Phenol	330	U
111-44-4-----	bis(2-Chloroethyl)Ether	330	U
95-57-8-----	2-Chlorophenol	330	U
541-73-1-----	1,3-Dichlorobenzene	330	U
106-46-7-----	1,4-Dichlorobenzene	330	U
95-50-1-----	1,2-Dichlorobenzene	330	U
95-48-7-----	2-Methylphenol	330	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5-----	4-Methylphenol	330	U
621-64-7-----	N-Nitroso-di-n-propylamine	330	U
67-72-1-----	Hexachloroethane	330	U
98-95-3-----	Nitrobenzene	330	U
78-59-1-----	Isophorone	330	U
88-75-5-----	2-Nitrophenol	330	U
105-67-9-----	2,4-Dimethylphenol	330	U
111-91-1-----	bis(2-Chloroethoxy)methane	330	U
120-83-2-----	2,4-Dichlorophenol	330	U
120-82-1-----	1,2,4-Trichlorobenzene	330	U
91-20-3-----	Naphthalene	330	U
106-47-8-----	4-Chloroaniline	330	U
87-68-3-----	Hexachlorobutadiene	330	U
59-50-7-----	4-Chloro-3-Methylphenol	330	U
91-57-6-----	2-Methylnaphthalene	330	U
77-47-4-----	Hexachlorocyclopentadiene	330	U
88-06-2-----	2,4,6-Trichlorophenol	330	U
95-95-4-----	2,4,5-Trichlorophenol	830	U
91-58-7-----	2-Chloronaphthalene	330	U
88-74-4-----	2-Nitroaniline	830	U
131-11-3-----	Dimethylphthalate	330	U
208-96-8-----	Acenaphthylene	330	U
606-20-2-----	2,6-Dinitrotoluene	330	U
99-09-2-----	3-Nitroaniline	830	U
83-32-9-----	Acenaphthene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

SBLK1

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID:	BL0616SD
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	V9045.D
Level: (low/med)	LOW	Date Received:	/ /
% Moisture: 0	decanted: (Y/N) N	Date Extracted:	06/16/95
Concentrated Extract Volume:	500(uL)	Date Analyzed:	06/20/95
Injection Volume:	2.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y	pH: 7.0		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	830		U
100-02-7-----	4-Nitrophenol	830		U
132-64-9-----	Dibenzofuran	330		U
121-14-2-----	2,4-Dinitrotoluene	330		U
84-66-2-----	Diethylphthalate	23		J
7005-72-3-----	4-Chlorophenyl-phenylether	330		U
86-73-7-----	Fluorene	330		U
100-01-6-----	4-Nitroaniline	830		U
534-52-1-----	4,6-Dinitro-2-methylphenol	830		U
86-30-6-----	N-Nitrosodiphenylamine (1)	330		U
101-55-3-----	4-Bromophenyl-phenylether	330		U
118-74-1-----	Hexachlorobenzene	330		U
87-86-5-----	Pentachlorophenol	830		U
85-01-8-----	Phenanthrene	330		U
120-12-7-----	Anthracene	330		U
86-74-8-----	Carbazole	330		U
84-74-2-----	Di-n-butylphthalate	330		U
206-44-0-----	Fluoranthene	330		U
129-00-0-----	Pyrene	330		U
85-68-7-----	Butylbenzylphthalate	330		U
91-94-1-----	3,3'-Dichlorobenzidine	330		U
56-55-3-----	Benzo(a)anthracene	330		U
218-01-9-----	Chrysene	330		U
117-81-7-----	bis(2-Ethylhexyl)phthalate	51		J
117-84-0-----	Di-n-octylphthalate	330		U
205-99-2-----	Benzo(b)fluoranthene	330		U
207-08-9-----	Benzo(k)fluoranthene	330		U
50-32-8-----	Benzo(a)pyrene	330		U
193-39-5-----	Indeno(1,2,3-cd)pyrene	330		U
53-70-3-----	Dibenz(a,h)anthracene	330		U
191-24-2-----	Benzo(g,h,i)perylene	330		U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

SBLK1

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: BL0616SD	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	V9045.D
Level: (low/med)	LOW	Date Received:	/ /
% Moisture: 0	decanted: (Y/N) N	Date Extracted:	06/16/95
Concentrated Extract Volume:	500(uL)	Date Analyzed:	06/20/95
Injection Volume:	2.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y	pH: 7.0	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	

Number TICs found: 4

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 141-79-7	3-Penten-2-one, 4-methyl-	3.042	120	NJA
2. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.451	7300	NJA
3. 111-76-2	Ethanol, 2-butoxy-	3.914	240	NJ
4. UNKNOWN		25.138	4100	J
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829

FORM I SV-TIC

OLM03.0

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) WATER

Lab Sample ID: BL0617WA

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: V9044.D

Level: (low/med) LOW

Date Received: / /

% Moisture: _____ decanted: (Y/N) _____

Date Extracted: 06/17/95

Concentrated Extract Volume: 1000(uL)

Date Analyzed: 06/20/95

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/L	Q
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108-95-2-----	Phenol	10	U
111-44-4-----	bis(2-Chloroethyl)Ether	10	U
95-57-8-----	2-Chlorophenol	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
95-48-7-----	2-Methylphenol	10	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5-----	4-Methylphenol	10	U
621-64-7-----	N-Nitroso-di-n-propylamine	10	U
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
78-59-1-----	Isophorone	10	U
88-75-5-----	2-Nitrophenol	10	U
105-67-9-----	2,4-Dimethylphenol	10	U
111-91-1-----	bis(2-Chloroethoxy)methane	10	U
120-83-2-----	2,4-Dichlorophenol	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U
91-20-3-----	Naphthalene	10	U
106-47-8-----	4-Chloroaniline	10	U
87-68-3-----	Hexachlorobutadiene	10	U
59-50-7-----	4-Chloro-3-Methylphenol	10	U
91-57-6-----	2-Methylnaphthalene	10	U
77-47-4-----	Hexachlorocyclopentadiene	10	U
88-06-2-----	2,4,6-Trichlorophenol	10	U
95-95-4-----	2,4,5-Trichlorophenol	25	U
91-58-7-----	2-Chloronaphthalene	10	U
88-74-4-----	2-Nitroaniline	25	U
131-11-3-----	Dimethylphthalate	10	U
208-96-8-----	Acenaphthylene	10	U
606-20-2-----	2,6-Dinitrotoluene	10	U
99-09-2-----	3-Nitroaniline	25	U
83-32-9-----	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

SBLK2

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) WATER Lab Sample ID: BL0617WA

Sample wt/vol: 1000 (g/mL) ML Lab File ID: V9044.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 06/17/95

Concentrated Extract Volume: 1000(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5-----	2,4-Dinitrophenol	25	U
100-02-7-----	4-Nitrophenol	25	U
132-64-9-----	Dibenzofuran	10	U
121-14-2-----	2,4-Dinitrotoluene	10	U
84-66-2-----	Diethylphthalate	0.8	J
7005-72-3-----	4-Chlorophenyl-phenylether	10	U
86-73-7-----	Fluorene	10	U
100-01-6-----	4-Nitroaniline	25	U
534-52-1-----	4,6-Dinitro-2-methylphenol	25	U
86-30-6-----	N-Nitrosodiphenylamine (1)	10	U
101-55-3-----	4-Bromophenyl-phenylether	10	U
118-74-1-----	Hexachlorobenzene	10	U
87-86-5-----	Pentachlorophenol	25	U
85-01-8-----	Phenanthrene	10	U
120-12-7-----	Anthracene	10	U
86-74-8-----	Carbazole	10	U
84-74-2-----	Di-n-butylphthalate	1	J
206-44-0-----	Fluoranthene	10	U
129-00-0-----	Pyrene	10	U
85-68-7-----	Butylbenzylphthalate	10	U
91-94-1-----	3,3'-Dichlorobenzidine	10	U
56-55-3-----	Benzo(a)anthracene	10	U
218-01-9-----	Chrysene	10	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	0.6	J
117-84-0-----	Di-n-octylphthalate	10	U
205-99-2-----	Benzo(b)fluoranthene	10	U
207-08-9-----	Benzo(k)fluoranthene	10	U
50-32-8-----	Benzo(a)pyrene	10	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	10	U
53-70-3-----	Dibenz(a,h)anthracene	10	U
191-24-2-----	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylaraine

FORM I SV-2

OLM03.0

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) WATER Lab Sample ID: BL0617WA

Sample wt/vol: 1000 (g/mL) ML Lab File ID: V9044.D

Level: (low/med) LOW Date Received: / /

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 06/17/95

Concentrated Extract Volume: 1000(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABD9

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: V9026.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: 39 decanted: (Y/N) N

Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL)

Date Analyzed: 06/19/95

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
108-95-2-----	Phenol	540	U	
111-44-4-----	bis(2-Chloroethyl)Ether	540	U	
95-57-8-----	2-Chlorophenol	540	U	
541-73-1-----	1,3-Dichlorobenzene	540	U	
106-46-7-----	1,4-Dichlorobenzene	540	U	
95-50-1-----	1,2-Dichlorobenzene	540	U	
95-48-7-----	2-Methylphenol	540	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	540	U	
106-44-5-----	4-Methylphenol	540	U	
621-64-7-----	N-Nitroso-di-n-propylamine	540	U	
67-72-1-----	Hexachloroethane	540	U	
98-95-3-----	Nitrobenzene	540	U	
78-59-1-----	Isophorone	540	U	
88-75-5-----	2-Nitrophenol	540	U	
105-67-9-----	2,4-Dimethylphenol	540	U	
111-91-1-----	bis(2-Chloroethoxy)methane	540	U	
120-83-2-----	2,4-Dichlorophenol	540	U	
120-82-1-----	1,2,4-Trichlorobenzene	540	U	
91-20-3-----	Naphthalene	540	U	
106-47-8-----	4-Chloroaniline	540	U	
87-68-3-----	Hexachlorobutadiene	540	U	
59-50-7-----	4-Chloro-3-Methylphenol	540	U	
91-57-6-----	2-Methylnaphthalene	540	U	
77-47-4-----	Hexachlorocyclopentadiene	540	U	
88-06-2-----	2,4,6-Trichlorophenol	540	U	
95-95-4-----	2,4,5-Trichlorophenol	1400	U	
91-58-7-----	2-Chloronaphthalene	540	U	
88-74-4-----	2-Nitroaniline	1400	U	
131-11-3-----	Dimethylphthalate	540	U	
208-96-8-----	Acenaphthylene	540	U	
606-20-2-----	2,6-Dinitrotoluene	540	U	
99-09-2-----	3-Nitroaniline	1400	U	
83-32-9-----	Acenaphthene	540	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABD9

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.01	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	V9026.D
Level: (low/med)	LOW	Date Received:	06/16/95
% Moisture: 39	decanted: (Y/N) N	Date Extracted:	06/16/95
Concentrated Extract Volume:	500(uL)	Date Analyzed:	06/19/95
Injection Volume:	2.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y	pH: 7.0		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	1400	U
100-02-7-----	4-Nitrophenol	1400	U
132-64-9-----	Dibenzofuran	540	U
121-14-2-----	2,4-Dinitrotoluene	540	U
84-66-2-----	Diethylphthalate	540,38	JB
7005-72-3-----	4-Chlorophenyl-phenylether	540	U
86-73-7-----	Fluorene	540	U
100-01-6-----	4-Nitroaniline	1400	U
534-52-1-----	4,6-Dinitro-2-methylphenol	1400	U
86-30-6-----	N-Nitrosodiphenylamine (1)	540	U
101-55-3-----	4-Bromophenyl-phenylether	540	U
118-74-1-----	Hexachlorobenzene	540	U
87-86-5-----	Pentachlorophenol	1400	U
85-01-8-----	Phenanthrene	540	U
120-12-7-----	Anthracene	540	U
86-74-8-----	Carbazole	540	U
84-74-2-----	Di-n-butylphthalate	540	U
206-44-0-----	Fluoranthene	540	U
129-00-0-----	Pyrene	540	U
85-68-7-----	Butylbenzylphthalate	540	U
91-94-1-----	3,3'-Dichlorobenzidine	540	U
56-55-3-----	Benzo(a)anthracene	540	U
218-01-9-----	Chrysene	29	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	530	JB
117-84-0-----	Di-n-octylphthalate	540	U
205-99-2-----	Benzo(b)fluoranthene	37	J
207-08-9-----	Benzo(k)fluoranthene	540	U
50-32-8-----	Benzo(a)pyrene	92	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	42	J
53-70-3-----	Dibenz(a,h)anthracene	540	U
191-24-2-----	Benzo(g,h,i)perylene	360	J

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EABD9

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: V9026.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: 39 decanted: (Y/N) N

Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL)

Date Analyzed: 06/19/95

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.171	140	J
2.	UNKNOWN	2.192	170	J
3. 141-79-7	3-Penten-2-one, 4-methyl-	3.107	420	UNJAB
4. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.505	13000	UNJAB
5. 78-93-3	2-Butanone	3.624	200	NJ
6.	UNKNOWN ORGANIC ACID	9.145	210	J
7. 192-97-2	Benzo[e]pyrene	18.530	480	NJ
8.	UNKNOWN PAH	19.240	460	J
9.	UNKNOWN PAH	19.283	430	J
10.	UNKNOWN	19.821	340	J
11.	UNKNOWN	19.907	190	J
12.	UNKNOWN PAH	20.047	280	J
13.	UNKNOWN PAH	20.079	230	J
14.	UNKNOWN ALCOHOL	20.155	620	J
15. 83-47-6	.gamma.-Sitosterol	21.963	3800	NJ
16.	UNKNOWN	22.157	280	J
17.	UNKNOWN	22.243	250	J
18.	UNKNOWN	22.480	720	J
19.	UNKNOWN	22.512	770	J
20.	UNKNOWN	22.663	850	J
21.	UNKNOWN	22.975	1000	J
22.	UNKNOWN	23.125	520	J
23.	UNKNOWN	23.297	210	J
24. 1058-61-3	Stigmast-4-en-3-one	23.502	1600	NJ
25.	UNKNOWN	24.428	930	J
26.	UNKNOWN	24.740	1900	J
27.	UNKNOWN	25.321	3400	J
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABEL

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.02	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID: V9046.D	
Level: (low/med)	LOW	Date Received: 06/16/95	
% Moisture: 33	decanted: (Y/N) N	Date Extracted: 06/16/95	
Concentrated Extract Volume: 500(uL)		Date Analyzed: 06/20/95	
Injection Volume: 2.0(uL)		Dilution Factor: 1.0	
GPC Cleanup: (Y/N) Y		pH: 7.4	

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	UG/KG	Q
108-95-2-----	Phenol	490	U
111-44-4-----	bis(2-Chloroethyl)Ether	490	U
95-57-8-----	2-Chlorophenol	490	U
541-73-1-----	1,3-Dichlorobenzene	490	U
106-46-7-----	1,4-Dichlorobenzene	490	U
95-50-1-----	1,2-Dichlorobenzene	490	U
95-48-7-----	2-Methylphenol	490	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	490	U
106-44-5-----	4-Methylphenol	490	U
621-64-7-----	N-Nitroso-di-n-propylamine	490	U
67-72-1-----	Hexachloroethane	490	U
98-95-3-----	Nitrobenzene	490	U
78-59-1-----	Isophorone	490	U
88-75-5-----	2-Nitrophenol	490	U
105-67-9-----	2,4-Dimethylphenol	490	U
111-91-1-----	bis(2-Chloroethoxy)methane	490	U
120-83-2-----	2,4-Dichlorophenol	490	U
120-82-1-----	1,2,4-Trichlorobenzene	490	U
91-20-3-----	Naphthalene	490	U
106-47-8-----	4-Chloroaniline	490	U
87-68-3-----	Hexachlorobutadiene	490	U
59-50-7-----	4-Chloro-3-Methylphenol	490	U
91-57-6-----	2-Methylnaphthalene	490	U
77-47-4-----	Hexachlorocyclopentadiene	490	U
88-06-2-----	2,4,6-Trichlorophenol	490	U
95-95-4-----	2,4,5-Trichlorophenol	1200	U
91-58-7-----	2-Chloronaphthalene	490	U
88-74-4-----	2-Nitroaniline	1200	U
131-11-3-----	Dimethylphthalate	490	U
208-96-8-----	Acenaphthylene	490	U
606-20-2-----	2,6-Dinitrotoluene	490	U
99-09-2-----	3-Nitroaniline	1200	U
83-32-9-----	Acenaphthene	490	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE1

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.02	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID: V9046.D	
Level: (low/med)	LOW	Date Received: 06/16/95	
% Moisture: 33	decanted: (Y/N) N	Date Extracted: 06/16/95	
Concentrated Extract Volume: 500(uL)		Date Analyzed: 06/20/95	
Injection Volume: 2.0(uL)		Dilution Factor: 1.0	
GPC Cleanup: (Y/N) Y pH: 7.4			

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q	
51-28-5-----	2,4-Dinitrophenol_____	1200	U
100-02-7-----	4-Nitrophenol_____	1200	U
132-64-9-----	Dibenzofuran_____	490	U
121-14-2-----	2,4-Dinitrotoluene_____	490	U
84-66-2-----	Diethylphthalate_____	490	U
7005-72-3-----	4-Chlorophenyl-phenylether_____	490	U
86-73-7-----	Fluorene_____	490	U
100-01-6-----	4-Nitroaniline_____	1200	U
534-52-1-----	4,6-Dinitro-2-methylphenol_____	1200	U
86-30-6-----	N-Nitrosodiphenylamine (1)_____	490	U
101-55-3-----	4-Bromophenyl-phenylether_____	490	U
118-74-1-----	Hexachlorobenzene_____	490	U
87-86-5-----	Pentachlorophenol_____	1200	U
85-01-8-----	Phenanthrene_____	490	U
120-12-7-----	Anthracene_____	490	U
86-74-8-----	Carbazole_____	490	U
84-74-2-----	Di-n-butylphthalate_____	490	U
206-44-0-----	Fluoranthene_____	490	U
129-00-0-----	Pyrene_____	490	U
85-68-7-----	Butylbenzylphthalate_____	490	U
91-94-1-----	3,3'-Dichlorobenzidine_____	490	U
56-55-3-----	Benzo(a)anthracene_____	490	U
218-01-9-----	Chrysene_____	490	U
117-81-7-----	bis(2-Ethylhexyl)phthalate_____	490 65	U JB J446-29.9
117-84-0-----	Di-n-octylphthalate_____	490	U
205-99-2-----	Benzo(b)fluoranthene_____	490	U
207-08-9-----	Benzo(k)fluoranthene_____	490	U
50-32-8-----	Benzo(a)pyrene_____	490	U
193-39-5-----	Indeno(1,2,3-cd)pyrene_____	490	U
53-70-3-----	Dibenz(a,h)anthracene_____	490	U
191-24-2-----	Benzo(g,h,i)perylene_____	490	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EABE1

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.02

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9046.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 33 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 141-79-7	3-Penten-2-one, 4-methyl-	3.052	180	UNJAB
2. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.450	11000	UNJAB
3.	UNKNOWN HYDROCARBON	7.992	280	J
4.	UNKNOWN ORGANIC ACID	9.090	150	J
5.	UNKNOWN ORGANIC ACID	15.321	100	J
6.	UNKNOWN	21.112	500	J
7.	UNKNOWN	21.359	180	J
8.	UNKNOWN	21.908	260	J
9.	UNKNOWN	21.951	140	J
10.	UNKNOWN	24.523	1800	J
11.	UNKNOWN	25.115	3600	JB
12.	UNKNOWN	25.406	110	J
13.				
14.				
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30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE2

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.03

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9028.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 38 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

Q

108-95-2-----	Phenol	530	U
111-44-4-----	bis(2-Chloroethyl)Ether	530	U
95-57-8-----	2-Chlorophenol	530	U
541-73-1-----	1,3-Dichlorobenzene	530	U
106-46-7-----	1,4-Dichlorobenzene	530	U
95-50-1-----	1,2-Dichlorobenzene	530	U
95-48-7-----	2-Methylphenol	530	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	530	U
106-44-5-----	4-Methylphenol	530	U
621-64-7-----	N-Nitroso-di-n-propylamine	530	U
67-72-1-----	Hexachloroethane	530	U
98-95-3-----	Nitrobenzene	530	U
78-59-1-----	Isophorone	530	U
88-75-5-----	2-Nitrophenol	530	U
105-67-9-----	2,4-Dimethylphenol	530	U
111-91-1-----	bis(2-Chloroethoxy)methane	530	U
120-83-2-----	2,4-Dichlorophenol	530	U
120-82-1-----	1,2,4-Trichlorobenzene	530	U
91-20-3-----	Naphthalene	530	U
106-47-8-----	4-Chloroaniline	530	U
87-68-3-----	Hexachlorobutadiene	530	U
59-50-7-----	4-Chloro-3-Methylphenol	530	U
91-57-6-----	2-Methylnaphthalene	530	U
77-47-4-----	Hexachlorocyclopentadiene	530	U
88-06-2-----	2,4,6-Trichlorophenol	530	U
95-95-4-----	2,4,5-Trichlorophenol	1300	U
91-58-7-----	2-Chloronaphthalene	530	U
88-74-4-----	2-Nitroaniline	1300	U
131-11-3-----	Dimethylphthalate	530	U
208-96-8-----	Acenaphthylene	530	U
606-20-2-----	2,6-Dinitrotoluene	530	U
99-09-2-----	3-Nitroaniline	1300	U
83-32-9-----	Acenaphthene	530	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE2

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.03

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9028.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 38 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

51-28-5-----	2,4-Dinitrophenol	1300	U
100-02-7-----	4-Nitrophenol	1300	U
132-64-9-----	Dibenzofuran	530	U
121-14-2-----	2,4-Dinitrotoluene	530	U
84-66-2-----	Diethylphthalate	530	U
7005-72-3-----	4-Chlorophenyl-phenylether	530	U
86-73-7-----	Fluorene	530	U
100-01-6-----	4-Nitroaniline	1300	U
534-52-1-----	4,6-Dinitro-2-methylphenol	1300	U
86-30-6-----	N-Nitrosodiphenylamine (1)	530	U
101-55-3-----	4-Bromophenyl-phenylether	530	U
118-74-1-----	Hexachlorobenzene	530	U
87-86-5-----	Pentachlorophenol	1300	U
85-01-8-----	Phenanthrene	100	J
120-12-7-----	Anthracene	530	U
86-74-8-----	Carbazole	530	U
84-74-2-----	Di-n-butylphthalate	34	J
206-44-0-----	Fluoranthene	360	J
129-00-0-----	Pyrene	250	J
85-68-7-----	Butylbenzylphthalate	530	U
91-94-1-----	3,3'-Dichlorobenzidine	530	U
56-55-3-----	Benzo(a)anthracene	120	J
218-01-9-----	Chrysene	140	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	530	UJB
117-84-0-----	Di-n-octylphthalate	530	U
205-99-2-----	Benzo(b)fluoranthene	120	J
207-08-9-----	Benzo(k)fluoranthene	120	J
50-32-8-----	Benzo(a)pyrene	110	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	67	J
53-70-3-----	Dibenz(a,h)anthracene	530	U
191-24-2-----	Benzo(g,h,i)perylene	68	J

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

OLM03.0

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EABE2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.03

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9028.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 38 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1569-50-2	3-Penten-2-ol	2.202	160	NJ
2. 141-79-7	3-Penten-2-one, 4-methyl-	3.117	310	UNJAB
3. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.526	12000	UNJAB
4.	UNKNOWN ALCOHOL	8.036	370	J
5.	UNKNOWN ORGANIC ACID	9.155	200	J
6.	UNKNOWN	21.101	270	J
7. 83-48-7	Stigmasterol	21.381	680	NJ
8.	UNKNOWN	21.489	230	J
9.	UNKNOWN	21.553	230	J
10. 83-47-6	.gamma.-Sitosterol	21.941	3700	NJ
11.	UNKNOWN	22.081	4000	J
12.	UNKNOWN	22.500	1300	J
13.	UNKNOWN	22.651	1100	J
14.	UNKNOWN	22.769	220	J
15. 545-47-1	Lupeol	22.952	1700	NJ
16. 1058-61-3	Stigmast-4-en-3-one	23.491	1200	NJ
17.	UNKNOWN	24.039	180	J
18.	UNKNOWN	24.405	920	J
19.	UNKNOWN	24.728	2600	J
20.	UNKNOWN	25.309	4000	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE3

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.04	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	V9066.D
Level: (low/med)	LOW	Date Received:	06/16/95
% Moisture: 17	decanted: (Y/N) N	Date Extracted:	06/16/95
Concentrated Extract Volume: 500(uL)		Date Analyzed:	06/22/95
Injection Volume:	2.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y	pH: 7.7		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
108-95-2-----	Phenol	400		U
111-44-4-----	bis(2-Chloroethyl)Ether	400		U
95-57-8-----	2-Chlorophenol	400		U
541-73-1-----	1,3-Dichlorobenzene	400		U
106-46-7-----	1,4-Dichlorobenzene	400		U
95-50-1-----	1,2-Dichlorobenzene	400		U
95-48-7-----	2-Methylphenol	400		U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	400		U
106-44-5-----	4-Methylphenol	400		U
621-64-7-----	N-Nitroso-di-n-propylamine	400		U
67-72-1-----	Hexachloroethane	400		U
98-95-3-----	Nitrobenzene	400		U
78-59-1-----	Isophorone	400		U
88-75-5-----	2-Nitrophenol	400		U
105-67-9-----	2,4-Dimethylphenol	400		U
111-91-1-----	bis(2-Chloroethoxy)methane	400		U
120-83-2-----	2,4-Dichlorophenol	400		U
120-82-1-----	1,2,4-Trichlorobenzene	400		U
91-20-3-----	Naphthalene	400		U
106-47-8-----	4-Chloroaniline	400		U
87-68-3-----	Hexachlorobutadiene	400		U
59-50-7-----	4-Chloro-3-Methylphenol	400		U
91-57-6-----	2-Methylnaphthalene	400		U
77-47-4-----	Hexachlorocyclopentadiene	400		U
88-06-2-----	2,4,6-Trichlorophenol	400		U
95-95-4-----	2,4,5-Trichlorophenol	1000		U
91-58-7-----	2-Chloronaphthalene	400		U
88-74-4-----	2-Nitroaniline	1000		U
131-11-3-----	Dimethylphthalate	400		U
208-96-8-----	Acenaphthylene	400		U
606-20-2-----	2,6-Dinitrotoluene	400		U
99-09-2-----	3-Nitroaniline	1000		U
83-32-9-----	Acenaphthene	400		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE3

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID:	22611.04
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	V9066.D
Level: (low/med)	LOW	Date Received:	06/16/95
% Moisture: 17	decanted: (Y/N) N	Date Extracted:	06/16/95
Concentrated Extract Volume:	500(uL)	Date Analyzed:	06/22/95
Injection Volume:	2.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y	pH: 7.7		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	1000	U
100-02-7-----	4-Nitrophenol	1000	U
132-64-9-----	Dibenzofuran	400	U
121-14-2-----	2,4-Dinitrotoluene	400	U
84-66-2-----	Diethylphthalate	400	U
7005-72-3-----	4-Chlorophenyl-phenylether	400	U
86-73-7-----	Fluorene	400	U
100-01-6-----	4-Nitroaniline	1000	U
534-52-1-----	4,6-Dinitro-2-methylphenol	1000	U
86-30-6-----	N-Nitrosodiphenylamine (1)	400	U
101-55-3-----	4-Bromophenyl-phenylether	400	U
118-74-1-----	Hexachlorobenzene	400	U
87-86-5-----	Pentachlorophenol	1000	U
85-01-8-----	Phenanthrene	400	U
120-12-7-----	Anthracene	400	U
86-74-8-----	Carbazole	400	U
84-74-2-----	Di-n-butylphthalate	29	J
206-44-0-----	Fluoranthene	400	U
129-00-0-----	Pyrene	400	U
85-68-7-----	Butylbenzylphthalate	400	U
91-94-1-----	3,3'-Dichlorobenzidine	400	U
56-55-3-----	Benzo(a)anthracene	400	U
218-01-9-----	Chrysene	400	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	400	UJB Jec 659.95
117-84-0-----	Di-n-octylphthalate	400	U
205-99-2-----	Benzo(b)fluoranthene	400	U
207-08-9-----	Benzo(k)fluoranthene	400	U
50-32-8-----	Benzo(a)pyrene	400	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	400	U
53-70-3-----	Dibenz(a,h)anthracene	400	U
191-24-2-----	Benzo(g,h,i)perylene	400	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EABE3

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.04

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9066.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 17 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/22/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 141-79-7	3-Penten-2-one, 4-methyl-	3.033	140	UNJAB
2. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.464	7200	UNJAB
3.	UNKNOWN ORGANIC ACID	9.049	130	J
4.	UNKNOWN ORGANIC ACID	9.813	320	J
5.	UNKNOWN	17.971	140	J
6.	UNKNOWN	21.060	100	J
7.	UNKNOWN HYDROCARBON	21.727	130	J
8.	UNKNOWN	24.461	120	J
9.	UNKNOWN	25.042	3200	JB
10.				UAF
11.				cX
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC1

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.05	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID: V9049.D	
Level: (low/med)	LOW	Date Received: 06/16/95	
% Moisture: 32	decanted: (Y/N) N	Date Extracted: 06/16/95	
Concentrated Extract Volume:	500(uL)	Date Analyzed: 06/20/95	
Injection Volume:	2.0(uL)	Dilution Factor: 1.0	
GPC Cleanup: (Y/N) Y	pH: 7.6		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
108-95-2-----	Phenol	480	U	
111-44-4-----	bis(2-Chloroethyl)Ether	480	U	
95-57-8-----	2-Chlorophenol	480	U	
541-73-1-----	1,3-Dichlorobenzene	480	U	
106-46-7-----	1,4-Dichlorobenzene	480	U	
95-50-1-----	1,2-Dichlorobenzene	480	U	
95-48-7-----	2-Methylphenol	480	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	480	U	
106-44-5-----	4-Methylphenol	480	U	
621-64-7-----	N-Nitroso-di-n-propylamine	480	U	
67-72-1-----	Hexachloroethane	480	U	
98-95-3-----	Nitrobenzene	480	U	
78-59-1-----	Isophorone	480	U	
88-75-5-----	2-Nitrophenol	480	U	
105-67-9-----	2,4-Dimethylphenol	480	U	
111-91-1-----	bis(2-Chloroethoxy)methane	480	U	
120-83-2-----	2,4-Dichlorophenol	480	U	
120-82-1-----	1,2,4-Trichlorobenzene	480	U	
91-20-3-----	Naphthalene	480	U	
106-47-8-----	4-Chloroaniline	480	U	
87-68-3-----	Hexachlorobutadiene	480	U	
59-50-7-----	4-Chloro-3-Methylphenol	480	U	
91-57-6-----	2-Methylnaphthalene	480	U	
77-47-4-----	Hexachlorocyclopentadiene	480	U	
88-06-2-----	2,4,6-Trichlorophenol	480	U	
95-95-4-----	2,4,5-Trichlorophenol	1200	U	
91-58-7-----	2-Chloronaphthalene	480	U	
88-74-4-----	2-Nitroaniline	1200	U	
131-11-3-----	Dimethylphthalate	480	U	
208-96-8-----	Acenaphthylene	480	U	
606-20-2-----	2,6-Dinitrotoluene	480	U	
99-09-2-----	3-Nitroaniline	1200	U	
83-32-9-----	Acenaphthene	480	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC1

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.05	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	V9049.D
Level: (low/med)	LOW	Date Received:	06/16/95
% Moisture: 32	decanted: (Y/N) N	Date Extracted:	06/16/95
Concentrated Extract Volume:	500(uL)	Date Analyzed:	06/20/95
Injection Volume:	2.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y	pH: 7.6		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	1200	U	
100-02-7-----	4-Nitrophenol	1200	U	
132-64-9-----	Dibenzofuran	480	U	
121-14-2-----	2,4-Dinitrotoluene	480	U	
84-66-2-----	Diethylphthalate	480	U	
7005-72-3-----	4-Chlorophenyl-phenylether	480	U	
86-73-7-----	Fluorene	480	U	
100-01-6-----	4-Nitroaniline	1200	U	
534-52-1-----	4,6-Dinitro-2-methylphenol	1200	U	
86-30-6-----	N-Nitrosodiphenylamine (1)	480	U	
101-55-3-----	4-Bromophenyl-phenylether	480	U	
118-74-1-----	Hexachlorobenzene	480	U	
87-86-5-----	Pentachlorophenol	1200	U	
85-01-8-----	Phenanthrene	41	J	
120-12-7-----	Anthracene	480	U	
86-74-8-----	Carbazole	480	U	
84-74-2-----	Di-n-butylphthalate	480	U	
206-44-0-----	Fluoranthene	70	J	
129-00-0-----	Pyrene	56	J	
85-68-7-----	Butylbenzylphthalate	480	U	
91-94-1-----	3,3'-Dichlorobenzidine	480	U	
56-55-3-----	Benzo(a)anthracene	42	J	
218-01-9-----	Chrysene	41	J	
117-81-7-----	bis(2-Ethylhexyl)phthalate	480	U	
117-84-0-----	Di-n-octylphthalate	480	U	
205-99-2-----	Benzo(b)fluoranthene	30	J	
207-08-9-----	Benzo(k)fluoranthene	27	J	
50-32-8-----	Benzo(a)pyrene	33	J	
193-39-5-----	Indeno(1,2,3-cd)pyrene	480	U	
53-70-3-----	Dibenz(a,h)anthracene	480	U	
191-24-2-----	Benzo(g,h,i)perylene	480	U	

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC1

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.05

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9049.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 32 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 141-79-7	3-Penten-2-one, 4-methyl-	3.045	150	✓NJAB
2. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.454	9100	✓NJAB
3.	UNKNOWN ORGANIC ACID	9.094	140	J
4.	UNKNOWN	21.115	470	J
5.	UNKNOWN	21.363	140	J
6.	UNKNOWN	25.151	4200	✓JB
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1B
SEMOVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC2

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.06	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID: V9050.D	
Level: (low/med)	LOW	Date Received: 06/16/95	
% Moisture: 41	decanted: (Y/N) N	Date Extracted: 06/16/95	
Concentrated Extract Volume: 500(uL)		Date Analyzed: 06/20/95	
Injection Volume: 2.0(uL)		Dilution Factor: 1.0	
GPC Cleanup: (Y/N) Y		pH: 7.4	

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
108-95-2-----	Phenol	560		U
111-44-4-----	bis(2-Chloroethyl)Ether	560		U
95-57-8-----	2-Chlorophenol	560		U
541-73-1-----	1,3-Dichlorobenzene	560		U
106-46-7-----	1,4-Dichlorobenzene	560		U
95-50-1-----	1,2-Dichlorobenzene	560		U
95-48-7-----	2-Methylphenol	560		U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	560		U
106-44-5-----	4-Methylphenol	120		J
621-64-7-----	N-Nitroso-di-n-propylamine	560		U
67-72-1-----	Hexachloroethane	560		U
98-95-3-----	Nitrobenzene	560		U
78-59-1-----	Isophorone	560		U
88-75-5-----	2-Nitrophenol	560		U
105-67-9-----	2,4-Dimethylphenol	560		U
111-91-1-----	bis(2-Chloroethoxy)methane	560		U
120-83-2-----	2,4-Dichlorophenol	560		U
120-82-1-----	1,2,4-Trichlorobenzene	560		U
91-20-3-----	Naphthalene	560		U
106-47-8-----	4-Chloroaniline	560		U
87-68-3-----	Hexachlorobutadiene	560		U
59-50-7-----	4-Chloro-3-Methylphenol	560		U
91-57-6-----	2-Methylnaphthalene	560		U
77-47-4-----	Hexachlorocyclopentadiene	560		U
88-06-2-----	2,4,6-Trichlorophenol	560		U
95-95-4-----	2,4,5-Trichlorophenol	1400		U
91-58-7-----	2-Chloronaphthalene	560		U
88-74-4-----	2-Nitroaniline	1400		U
131-11-3-----	Dimethylphthalate	560		U
208-96-8-----	Acenaphthylene	560		U
606-20-2-----	2,6-Dinitrotoluene	560		U
99-09-2-----	3-Nitroaniline	1400		U
83-32-9-----	Acenaphthene	560		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC2

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID:	22611.06
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	V9050.D
Level: (low/med)	LOW	Date Received:	06/16/95
% Moisture: 41	decanted: (Y/N) N	Date Extracted:	06/16/95
Concentrated Extract Volume:	500(uL)	Date Analyzed:	06/20/95
Injection Volume:	2.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y	pH: 7.4		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	1400	U
100-02-7-----	4-Nitrophenol	1400	U
132-64-9-----	Dibenzofuran	560	U
121-14-2-----	2,4-Dinitrotoluene	560	U
84-66-2-----	Diethylphthalate	560	U
7005-72-3-----	4-Chlorophenyl-phenylether	560	U
86-73-7-----	Fluorene	560	U
100-01-6-----	4-Nitroaniline	1400	U
534-52-1-----	4,6-Dinitro-2-methylphenol	1400	U
86-30-6-----	N-Nitrosodiphenylamine (1)	560	U
101-55-3-----	4-Bromophenyl-phenylether	560	U
118-74-1-----	Hexachlorobenzene	560	U
87-86-5-----	Pentachlorophenol	1400	U
85-01-8-----	Phenanthrene	85	J
120-12-7-----	Anthracene	560	U
86-74-8-----	Carbazole	560	U
84-74-2-----	Di-n-butylphthalate	560	U
206-44-0-----	Fluoranthene	130	J
129-00-0-----	Pyrene	120	J
85-68-7-----	Butylbenzylphthalate	38	J
91-94-1-----	3,3'-Dichlorobenzidine	560	U
56-55-3-----	Benzo(a)anthracene	52	J
218-01-9-----	Chrysene	68	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	560	JB
117-84-0-----	Di-n-octylphthalate	560	U
205-99-2-----	Benzo(b)fluoranthene	61	J
207-08-9-----	Benzo(k)fluoranthene	43	J
50-32-8-----	Benzo(a)pyrene	51	J
193-39-5-----	Indeno(1,2,3-cd)pyrene	46	J
53-70-3-----	Dibenz(a,h)anthracene	560	U
191-24-2-----	Benzo(g,h,i)perylene	44	J

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC2

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.06

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9050.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 41 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 141-79-7	3-Penten-2-one, 4-methyl-	3.042	190	✓NJAB
2. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.440	12000	✓NJAB
3. 103-82-2	Benzeneacetic acid	6.217	150	NJ
4.	UNKNOWN HYDROCARBON	7.992	430	J
5.	UNKNOWN ORGANIC ACID	9.101	180	J
6.	UNKNOWN	11.296	170	J
7.	UNKNOWN	11.458	630	J
8.	UNKNOWN ORGANIC ACID	11.964	270	J
9.	UNKNOWN ORGANIC ACID	12.104	560	J
10.	UNKNOWN	12.717	150	J
11.	UNKNOWN HYDROCARBON	13.008	280	J
12.	UNKNOWN	13.524	360	J
13.	UNKNOWN HYDROCARBON	18.432	230	J
14.	UNKNOWN HYDROCARBON	18.755	280	J
15.	UNKNOWN	19.734	270	J
16. 57-88-5	Cholesterol	20.089	1300	NJ
17.	Ergost-en-ol, (3.beta.)-	20.983	1100	J
18. 83-48-7	Stigmasterol	21.273	1700	NJ
19.	UNKNOWN	21.435	410	J
20. 83-47-6	.gamma.-Sitosterol	21.844	4200	NJ
21.	UNKNOWN	22.371	1700	J
22.	UNKNOWN	22.522	370	J
23.	UNKNOWN	22.629	300	J
24. 545-47-1	Lupeol	22.823	920	NJ
25.	UNKNOWN	22.963	220	J
26. 1058-61-3	Stigmast-4-en-3-one	23.340	1600	NJ
27.	UNKNOWN	24.545	640	J
28.	UNKNOWN	25.126	4900	✓JB
29.	UNKNOWN	25.654	240	J
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC3

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.07	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID: V9051.D	
Level: (low/med)	LOW	Date Received: 06/16/95	
% Moisture: 50	decanted: (Y/N) N	Date Extracted: 06/16/95	
Concentrated Extract Volume: 500(uL)		Date Analyzed: 06/20/95	
Injection Volume: 2.0(uL)		Dilution Factor: 1.0	
GPC Cleanup: (Y/N) Y		pH: 7.0	

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
108-95-2-----	Phenol	660		U
111-44-4-----	bis(2-Chloroethyl)Ether	660		U
95-57-8-----	2-Chlorophenol	660		U
541-73-1-----	1,3-Dichlorobenzene	660		U
106-46-7-----	1,4-Dichlorobenzene	660		U
95-50-1-----	1,2-Dichlorobenzene	660		U
95-48-7-----	2-Methylphenol	660		U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	660		U
106-44-5-----	4-Methylphenol	49		J
621-64-7-----	N-Nitroso-di-n-propylamine	660		U
67-72-1-----	Hexachloroethane	660		U
98-95-3-----	Nitrobenzene	660		U
78-59-1-----	Isophorone	660		U
88-75-5-----	2-Nitrophenol	660		U
105-67-9-----	2,4-Dimethylphenol	660		U
111-91-1-----	bis(2-Chloroethoxy)methane	660		U
120-83-2-----	2,4-Dichlorophenol	660		U
120-82-1-----	1,2,4-Trichlorobenzene	660		U
91-20-3-----	Naphthalene	660		U
106-47-8-----	4-Chloroaniline	660		U
87-68-3-----	Hexachlorobutadiene	660		U
59-50-7-----	4-Chloro-3-Methylphenol	660		U
91-57-6-----	2-Methylnaphthalene	660		U
77-47-4-----	Hexachlorocyclopentadiene	660		U
88-06-2-----	2,4,6-Trichlorophenol	660		U
95-95-4-----	2,4,5-Trichlorophenol	1700		U
91-58-7-----	2-Chloronaphthalene	660		U
88-74-4-----	2-Nitroaniline	1700		U
131-11-3-----	Dimethylphthalate	660		U
208-96-8-----	Acenaphthylene	660		U
606-20-2-----	2,6-Dinitrotoluene	660		U
99-09-2-----	3-Nitroaniline	1700		U
83-32-9-----	Acenaphthene	660		U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC3

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9051.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 50 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
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51-28-5-----	2,4-Dinitrophenol	1700		U
100-02-7-----	4-Nitrophenol	1700		U
132-64-9-----	Dibenzofuran	660		U
121-14-2-----	2,4-Dinitrotoluene	660		U
84-66-2-----	Diethylphthalate	660		U
7005-72-3-----	4-Chlorophenyl-phenylether	660		U
86-73-7-----	Fluorene	660		U
100-01-6-----	4-Nitroaniline	1700		U
534-52-1-----	4,6-Dinitro-2-methylphenol	1700		U
86-30-6-----	N-Nitrosodiphenylamine (1)	660		U
101-55-3-----	4-Bromophenyl-phenylether	660		U
118-74-1-----	Hexachlorobenzene	660		U
87-86-5-----	Pentachlorophenol	1700		U
85-01-8-----	Phenanthrene	33		J
120-12-7-----	Anthracene	660		U
86-74-8-----	Carbazole	660		U
84-74-2-----	Di-n-butylphthalate	51		J
206-44-0-----	Fluoranthene	70		J
129-00-0-----	Pyrene	59		J
85-68-7-----	Butylbenzylphthalate	660		U
91-94-1-----	3,3'-Dichlorobenzidine	660		U
56-55-3-----	Benzo(a)anthracene	660		U
218-01-9-----	Chrysene	50		J
117-81-7-----	bis(2-Ethylhexyl)phthalate	120		UJB 6-29-95
117-84-0-----	Di-n-octylphthalate	660		U
205-99-2-----	Benzo(b)fluoranthene	43		J
207-08-9-----	Benzo(k)fluoranthene	660		U
50-32-8-----	Benzo(a)pyrene	37		J
193-39-5-----	Indeno(1,2,3-cd)pyrene	39		J
53-70-3-----	Dibenz(a,h)anthracene	660		U
191-24-2-----	Benzo(g,h,i)perylene	44		J

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC3

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9051.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 50 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.098	200	J
2. 141-79-7	3-Penten-2-one, 4-methyl-	3.056	260	UNJAB
3. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.443	12000	UNJAB
4.	UNKNOWN HYDROCARBON	7.985	460	J
5.	UNKNOWN ORGANIC ACID	9.094	210	J
6.	UNKNOWN ORGANIC ACID	12.107	580	J
7.	UNKNOWN HYDROCARBON	13.011	260	J
8.	UNKNOWN HYDROCARBON	13.528	210	J
9.	UNKNOWN	17.230	540	J
10.	UNKNOWN HYDROCARBON	18.414	590	J
11.	UNKNOWN ORGANIC ACID	19.512	490	J
12.	UNKNOWN ALCOHOL	19.673	340	J
13.	UNKNOWN	19.749	410	J
14. 57-88-5	Cholesterol	20.093	1100	NJ
15.	Ergosta-dien-ol,	20.480	470	J
16.	UNKNOWN ALDEHYDE	20.706	380	J
17.	Ergost-en-ol, (3. β .)-	20.986	1200	J
18. 83-48-7	Stigmasterol	21.277	1900	NJ
19.	UNKNOWN	21.384	1100	J
20. 83-47-6	.gamma.-Sitosterol	21.847	7800	NJ
21. 6538-02-9	Ergostanol	21.966	360	NJ
22.	UNKNOWN	22.138	360	J
23.	UNKNOWN HYDROCARBON	22.385	1700	J
24.	UNKNOWN	22.536	880	J
25.	UNKNOWN	22.644	360	J
26.	UNKNOWN	22.837	1500	J
27. 1058-61-3	Stigmast-4-en-3-one	23.354	2700	NJ
28.	UNKNOWN	23.828	320	J
29.	UNKNOWN	24.559	1600	J
30.	UNKNOWN	25.130	5200	UJB

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC3

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9051.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 50 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	25.668	350	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC4

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID:	22611.08
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	V9057.D
Level: (low/med)	LOW	Date Received:	06/16/95
% Moisture: 43	decanted: (Y/N) N	Date Extracted:	06/16/95
Concentrated Extract Volume:	500(uL)	Date Analyzed:	06/21/95
Injection Volume:	2.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y	pH: 6.9		

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
108-95-2-----	Phenol	580
111-44-4-----	bis(2-Chloroethyl)Ether	580
95-57-8-----	2-Chlorophenol	580
541-73-1-----	1,3-Dichlorobenzene	580
106-46-7-----	1,4-Dichlorobenzene	580
95-50-1-----	1,2-Dichlorobenzene	580
95-48-7-----	2-Methylphenol	580
108-60-1-----	2,2'-oxybis(1-Chloropropane)	580
106-44-5-----	4-Methylphenol	140
621-64-7-----	N-Nitroso-di-n-propylamine	580
67-72-1-----	Hexachloroethane	580
98-95-3-----	Nitrobenzene	580
78-59-1-----	Isophorone	580
88-75-5-----	2-Nitrophenol	580
105-67-9-----	2,4-Dimethylphenol	580
111-91-1-----	bis(2-Chloroethoxy)methane	580
120-83-2-----	2,4-Dichlorophenol	580
120-82-1-----	1,2,4-Trichlorobenzene	580
91-20-3-----	Naphthalene	580
106-47-8-----	4-Chloroaniline	580
87-68-3-----	Hexachlorobutadiene	580
59-50-7-----	4-Chloro-3-Methylphenol	580
91-57-6-----	2-Methylnaphthalene	580
77-47-4-----	Hexachlorocyclopentadiene	580
88-06-2-----	2,4,6-Trichlorophenol	580
95-95-4-----	2,4,5-Trichlorophenol	1400
91-58-7-----	2-Chloronaphthalene	580
88-74-4-----	2-Nitroaniline	1400
131-11-3-----	Dimethylphthalate	580
208-96-8-----	Acenaphthylene	580
606-20-2-----	2,6-Dinitrotoluene	580
99-09-2-----	3-Nitroaniline	1400
83-32-9-----	Acenaphthene	580

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC4

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9057.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 43 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND	Q
51-28-5-----	2,4-Dinitrophenol	1400
100-02-7-----	4-Nitrophenol	1400
132-64-9-----	Dibenzofuran	580
121-14-2-----	2,4-Dinitrotoluene	580
84-66-2-----	Diethylphthalate	580
7005-72-3-----	4-Chlorophenyl-phenylether	580
86-73-7-----	Fluorene	580
100-01-6-----	4-Nitroaniline	1400
534-52-1-----	4,6-Dinitro-2-methylphenol	1400
86-30-6-----	N-Nitrosodiphenylamine (1)	580
101-55-3-----	4-Bromophenyl-phenylether	580
118-74-1-----	Hexachlorobenzene	580
87-86-5-----	Pentachlorophenol	1400
85-01-8-----	Phenanthrene	140
120-12-7-----	Anthracene	32
86-74-8-----	Carbazole	580
84-74-2-----	Di-n-butylphthalate	580
206-44-0-----	Fluoranthene	170
129-00-0-----	Pyrene	140
85-68-7-----	Butylbenzylphthalate	580
91-94-1-----	3,3'-Dichlorobenzidine	580
56-55-3-----	Benzo(a)anthracene	96
218-01-9-----	Chrysene	130
117-81-7-----	bis(2-Ethylhexyl)phthalate	580
117-84-0-----	Di-n-octylphthalate	580
205-99-2-----	Benzo(b)fluoranthene	90
207-08-9-----	Benzo(k)fluoranthene	65
50-32-8-----	Benzo(a)pyrene	170
193-39-5-----	Indeno(1,2,3-cd)pyrene	580
53-70-3-----	Dibenz(a,h)anthracene	580
191-24-2-----	Benzo(g,h,i)perylene	3000

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC4

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9057.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 43 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/21/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 141-79-7	3-Penten-2-one, 4-methyl-	2.999	440	VNJAB
2. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.397	12000	VNJAB
3. 78-93-3	2-Butanone	3.516	230	NJ
4. 65-85-0	Benzoic Acid	5.582	130	NJ
5.	UNKNOWN HYDROCARBON	7.918	420	J
6.	UNKNOWN ORGANIC ACID	9.026	210	J
7.	UNKNOWN ORGANIC ACID	11.889	220	J
8.	UNKNOWN ORGANIC ACID	12.029	510	J
9.	UNKNOWN ORGANIC ACID	13.449	490	J
10.	Benzo[]phenanthrene, -dimeth	17.475	400	J
11. 192-97-2	Benzo[e]pyrene	18.400	1200	NJ
12.	UNKNOWN PAH	19.100	1400	J
13.	UNKNOWN PAH	19.143	1100	J
14.	UNKNOWN PAH	19.380	400	J
15.	UNKNOWN	19.649	640	J
16.	UNKNOWN PAH	19.885	1000	J
17.	UNKNOWN PAH	19.929	1000	J
18.	UNKNOWN PAH	20.198	440	J
19.	UNKNOWN PAH	20.262	840	J
20.	UNKNOWN PAH	20.768	640	J
21. 83-47-6	.gamma.-Sitosterol	21.726	3900	NJ
22.	UNKNOWN	21.909	1200	J
23.	UNKNOWN	21.984	700	J
24.	UNKNOWN	22.146	410	J
25.	-Amyrin	22.210	860	J
26.	UNKNOWN	22.275	1700	J
27.	UNKNOWN PAH	22.425	1600	J
28.	UNKNOWN PAH	22.974	2200	J
29. 1058-61-3	Stigmast-4-en-3-one	23.222	1400	NJ
30.	UNKNOWN	23.663	700	J

563

OLM03.0

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC4

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.08	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID: V9057.D	
Level: (low/med)	LOW	Date Received: 06/16/95	
% Moisture: 43	decanted: (Y/N) N	Date Extracted: 06/16/95	
Concentrated Extract Volume: 500(uL)		Date Analyzed: 06/21/95	
Injection Volume: 2.0(uL)		Dilution Factor: 1.0	
GPC Cleanup: (Y/N) Y	pH: 6.9		

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	23.738	680	J
2.	UNKNOWN	24.094	880	J
3.	UNKNOWN	24.416	3700	J
4.	UNKNOWN	24.955	3400	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC5

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.09	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID: V9053.D	
Level: (low/med)	LOW	Date Received: 06/16/95	
% Moisture: 36	decanted: (Y/N) N	Date Extracted: 06/16/95	
Concentrated Extract Volume:	500(uL)	Date Analyzed: 06/20/95	
Injection Volume:	2.0(uL)	Dilution Factor: 1.0	
GPC Cleanup: (Y/N) Y	pH: 7.2		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
108-95-2-----	Phenol	520	U	
111-44-4-----	bis(2-Chloroethyl)Ether	520	U	
95-57-8-----	2-Chlorophenol	520	U	
541-73-1-----	1,3-Dichlorobenzene	520	U	
106-46-7-----	1,4-Dichlorobenzene	520	U	
95-50-1-----	1,2-Dichlorobenzene	520	U	
95-48-7-----	2-Methylphenol	520	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	520	U	
106-44-5-----	4-Methylphenol	520	U	
621-64-7-----	N-Nitroso-di-n-propylamine	520	U	
67-72-1-----	Hexachloroethane	520	U	
98-95-3-----	Nitrobenzene	520	U	
78-59-1-----	Isophorone	520	U	
88-75-5-----	2-Nitrophenol	520	U	
105-67-9-----	2,4-Dimethylphenol	520	U	
111-91-1-----	bis(2-Chloroethoxy)methane	520	U	
120-83-2-----	2,4-Dichlorophenol	520	U	
120-82-1-----	1,2,4-Trichlorobenzene	520	U	
91-20-3-----	Naphthalene	520	U	
106-47-8-----	4-Chloroaniline	520	U	
87-68-3-----	Hexachlorobutadiene	520	U	
59-50-7-----	4-Chloro-3-Methylphenol	520	U	
91-57-6-----	2-Methylnaphthalene	520	U	
77-47-4-----	Hexachlorocyclopentadiene	520	U	
88-06-2-----	2,4,6-Trichlorophenol	520	U	
95-95-4-----	2,4,5-Trichlorophenol	1300	U	
91-58-7-----	2-Chloronaphthalene	520	U	
88-74-4-----	2-Nitroaniline	1300	U	
131-11-3-----	Dimethylphthalate	520	U	
208-96-8-----	Acenaphthylene	520	U	
606-20-2-----	2,6-Dinitrotoluene	520	U	
99-09-2-----	3-Nitroaniline	1300	U	
83-32-9-----	Acenaphthene	520	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAPC5

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.09

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: V9053.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: 36 decanted: (Y/N) N

Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL)

Date Analyzed: 06/20/95

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	1300		U
100-02-7-----	4-Nitrophenol	1300		U
132-64-9-----	Dibenzofuran	520		U
121-14-2-----	2,4-Dinitrotoluene	520		U
84-66-2-----	Diethylphthalate	520		U
7005-72-3-----	4-Chlorophenyl-phenylether	520		U
86-73-7-----	Fluorene	520		U
100-01-6-----	4-Nitroaniline	1300		U
534-52-1-----	4,6-Dinitro-2-methylphenol	1300		U
86-30-6-----	N-Nitrosodiphenylamine (1)	520		U
101-55-3-----	4-Bromophenyl-phenylether	520		U
118-74-1-----	Hexachlorobenzene	520		U
87-86-5-----	Pentachlorophenol	1300		U
85-01-8-----	Phenanthrene	520		U
120-12-7-----	Anthracene	520		U
86-74-8-----	Carbazole	520		U
84-74-2-----	Di-n-butylphthalate	32		J
206-44-0-----	Fluoranthene	37		J
129-00-0-----	Pyrene	38		J
85-68-7-----	Butylbenzylphthalate	520		U
91-94-1-----	3,3'-Dichlorobenzidine	520		U
56-55-3-----	Benzo(a)anthracene	520		U
218-01-9-----	Chrysene	35		J
117-81-7-----	bis(2-Ethylhexyl)phthalate	500	120	WB 6-19-95
117-84-0-----	Di-n-octylphthalate	520		U
205-99-2-----	Benzo(b)fluoranthene	30		J
207-08-9-----	Benzo(k)fluoranthene	520		U
50-32-8-----	Benzo(a)pyrene	520		U
193-39-5-----	Indeno(1,2,3-cd)pyrene	520		U
53-70-3-----	Dibenz(a,h)anthracene	520		U
191-24-2-----	Benzo(g,h,i)perylene	38		J

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

OLM03.0

624

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC5

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.09

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9053.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 36 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1569-50-2	3-Penten-2-ol	2.084	110	NJ
2. 141-79-7	3-Penten-2-one, 4-methyl-	3.041	190	UNJAB
3. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.450	11000	UNJAB
4.	UNKNOWN ORGANIC ACID	9.101	140	J
5.	UNKNOWN ORGANIC ACID	12.114	210	J
6.	UNKNOWN ORGANIC ACID	15.332	990	J
7. 10546-70-0	Benzamide, N-propyl-	15.881	270	NJ
8.	UNKNOWN	15.956	510	J
9.	UNKNOWN	18.496	160	J
10.	UNKNOWN	19.756	240	J
11.	UNKNOWN	19.906	240	J
12.	UNKNOWN	20.121	230	J
13.	UNKNOWN	21.036	180	J
14. 14021-23-9	D-Friedoolean-14-ene, 3-meth	21.144	1700	NJ
15.	UNKNOWN	21.327	260	J
16. 83-47-6	.gamma.-Sitosterol	21.876	1100	NJ
17.	Unknown	21.994	200	J
18. 1058-61-3	Stigmast-4-en-3-one	23.372	370	NJ
19.	UNKNOWN	24.577	220	J
20.	UNKNOWN	25.148	3500	UJB
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC6

Lab Code: SWOK	Case No.: 23669	SAS No.:	SDG No.: EABD9
Matrix: (soil/water) SOIL		Lab Sample ID: 22611.10	
Sample wt/vol:	30.0 (g/mL) G	Lab File ID:	V9054.D
Level: (low/med)	LOW	Date Received:	06/16/95
% Moisture: 35	decanted: (Y/N) N	Date Extracted:	06/16/95
Concentrated Extract Volume:	500(uL)	Date Analyzed:	06/20/95
Injection Volume:	2.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N) Y	pH: 7.2		

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
108-95-2-----	Phenol	510	U	
111-44-4-----	bis(2-Chloroethyl)Ether	510	U	
95-57-8-----	2-Chlorophenol	510	U	
541-73-1-----	1,3-Dichlorobenzene	510	U	
106-46-7-----	1,4-Dichlorobenzene	510	U	
95-50-1-----	1,2-Dichlorobenzene	510	U	
95-48-7-----	2-Methylphenol	510	U	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	510	U	
106-44-5-----	4-Methylphenol	510	U	
621-64-7-----	N-Nitroso-di-n-propylamine	510	U	
67-72-1-----	Hexachloroethane	510	U	
98-95-3-----	Nitrobenzene	510	U	
78-59-1-----	Isophorone	510	U	
88-75-5-----	2-Nitrophenol	510	U	
105-67-9-----	2,4-Dimethylphenol	510	U	
111-91-1-----	bis(2-Chloroethoxy)methane	510	U	
120-83-2-----	2,4-Dichlorophenol	510	U	
120-82-1-----	1,2,4-Trichlorobenzene	510	U	
91-20-3-----	Naphthalene	510	U	
106-47-8-----	4-Chloroaniline	510	U	
87-68-3-----	Hexachlorobutadiene	510	U	
59-50-7-----	4-Chloro-3-Methylphenol	510	U	
91-57-6-----	2-Methylnaphthalene	510	U	
77-47-4-----	Hexachlorocyclopentadiene	510	U	
88-06-2-----	2,4,6-Trichlorophenol	510	U	
95-95-4-----	2,4,5-Trichlorophenol	1300	U	
91-58-7-----	2-Chloronaphthalene	510	U	
88-74-4-----	2-Nitroaniline	1300	U	
131-11-3-----	Dimethylphthalate	510	U	
208-96-8-----	Acenaphthylene	510	U	
606-20-2-----	2,6-Dinitrotoluene	510	U	
99-09-2-----	3-Nitroaniline	1300	U	
83-32-9-----	Acenaphthene	510	U	

FORM I SV-1

OLM03.0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAPC6

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.10

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: V9054.D

Level: (low/med) LOW

Date Received: 06/16/95

% Moisture: 35 decanted: (Y/N) N

Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL)

Date Analyzed: 06/20/95

Injection Volume: 2.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5-----	2,4-Dinitrophenol	1300	U
100-02-7-----	4-Nitrophenol	1300	U
132-64-9-----	Dibenzofuran	510	U
121-14-2-----	2,4-Dinitrotoluene	510	U
84-66-2-----	Diethylphthalate	510	U
7005-72-3-----	4-Chlorophenyl-phenylether	510	U
86-73-7-----	Fluorene	510	U
100-01-6-----	4-Nitroaniline	1300	U
534-52-1-----	4,6-Dinitro-2-methylphenol	1300	U
86-30-6-----	N-Nitrosodiphenylamine (1)	510	U
101-55-3-----	4-Bromophenyl-phenylether	510	U
118-74-1-----	Hexachlorobenzene	510	U
87-86-5-----	Pentachlorophenol	1300	U
85-01-8-----	Phenanthrene	510	U
120-12-7-----	Anthracene	510	U
86-74-8-----	Carbazole	510	U
84-74-2-----	Di-n-butylphthalate	33	J
206-44-0-----	Fluoranthene	34	J
129-00-0-----	Pyrene	34	J
85-68-7-----	Butylbenzylphthalate	510	U
91-94-1-----	3,3'-Dichlorobenzidine	510	U
56-55-3-----	Benzo(a)anthracene	510	U
218-01-9-----	Chrysene	27	J
117-81-7-----	bis(2-Ethylhexyl)phthalate	510 72	JB 6-2445
117-84-0-----	Di-n-octylphthalate	510	U
205-99-2-----	Benzo(b)fluoranthene	26	J
207-08-9-----	Benzo(k)fluoranthene	510	U
50-32-8-----	Benzo(a)pyrene	510	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	26	J
53-70-3-----	Dibenz(a,h)anthracene	510	U
191-24-2-----	Benzo(g,h,i)perylene	510	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

OLM03.0

668

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC6

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: V9054.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: 35 decanted: (Y/N) N Date Extracted: 06/16/95

Concentrated Extract Volume: 500(uL) Date Analyzed: 06/20/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN KETONE	2.098	130	J
2. 141-79-7	3-Penten-2-one, 4-methyl-	3.045	180	UNJAB
3. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.443	10000	UNJAB
4.	UNKNOWN ORGANIC ACID	9.104	150	J
5.	UNKNOWN ORGANIC ACID	12.107	120	J
6.	UNKNOWN ORGANIC ACID	15.335	230	J
7.	UNKNOWN ALCOHOL	17.262	240	J
8.	UNKNOWN HYDROCARBON	18.446	260	J
9.	UNKNOWN	18.500	210	J
10.	UNKNOWN KETONE	19.759	340	J
11.	UNKNOWN	21.147	1800	J
12.	UNKNOWN	21.395	590	J
13. 83-47-6	.gamma.-Sitosterol	21.890	770	NJ
14.	UNKNOWN	22.385	120	J
15.	UNKNOWN	23.375	340	J
16.	UNKNOWN	25.151	3300	JB
17.				
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC7

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) WATER Lab Sample ID: 22611.11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: V9023.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 06/17/95

Concentrated Extract Volume: 1000(uL) Date Analyzed: 06/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

108-95-2-----	Phenol	10	U
111-44-4-----	bis(2-Chloroethyl)Ether	10	U
95-57-8-----	2-Chlorophenol	10	U
541-73-1-----	1,3-Dichlorobenzene	10	U
106-46-7-----	1,4-Dichlorobenzene	10	U
95-50-1-----	1,2-Dichlorobenzene	10	U
95-48-7-----	2-Methylphenol	10	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5-----	4-Methylphenol	10	U
621-64-7-----	N-Nitroso-di-n-propylamine	10	U
67-72-1-----	Hexachloroethane	10	U
98-95-3-----	Nitrobenzene	10	U
78-59-1-----	Isophorone	10	U
88-75-5-----	2-Nitrophenol	10	U
105-67-9-----	2,4-Dimethylphenol	10	U
111-91-1-----	bis(2-Chloroethoxy)methane	10	U
120-83-2-----	2,4-Dichlorophenol	10	U
120-82-1-----	1,2,4-Trichlorobenzene	10	U
91-20-3-----	Naphthalene	10	U
106-47-8-----	4-Chloroaniline	10	U
87-68-3-----	Hexachlorobutadiene	10	U
59-50-7-----	4-Chloro-3-Methylphenol	10	U
91-57-6-----	2-Methylnaphthalene	10	U
77-47-4-----	Hexachlorocyclopentadiene	10	U
88-06-2-----	2,4,6-Trichlorophenol	10	U
95-95-4-----	2,4,5-Trichlorophenol	25	U
91-58-7-----	2-Chloronaphthalene	10	U
88-74-4-----	2-Nitroaniline	25	U
131-11-3-----	Dimethylphthalate	10	U
208-96-8-----	Acenaphthylene	10	U
606-20-2-----	2,6-Dinitrotoluene	10	U
99-09-2-----	3-Nitroaniline	25	U
83-32-9-----	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC7

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) WATER Lab Sample ID: 22611.11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: V9023.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 06/17/95

Concentrated Extract Volume: 1000(uL) Date Analyzed: 06/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND	Q
51-28-5-----	2,4-Dinitrophenol	25
100-02-7-----	4-Nitrophenol	25
132-64-9-----	Dibenzofuran	10
121-14-2-----	2,4-Dinitrotoluene	10
84-66-2-----	Diethylphthalate	10
7005-72-3-----	4-Chlorophenyl-phenylether	10
86-73-7-----	Fluorene	10
100-01-6-----	4-Nitroaniline	25
534-52-1-----	4,6-Dinitro-2-methylphenol	25
86-30-6-----	N-Nitrosodiphenylamine (1)	10
101-55-3-----	4-Bromophenyl-phenylether	10
118-74-1-----	Hexachlorobenzene	10
87-86-5-----	Pentachlorophenol	25
85-01-8-----	Phenanthrene	10
120-12-7-----	Anthracene	10
86-74-8-----	Carbazole	10
84-74-2-----	Di-n-butylphthalate	10
206-44-0-----	Fluoranthene	10
129-00-0-----	Pyrene	10
85-68-7-----	Butylbenzylphthalate	10
91-94-1-----	3,3'-Dichlorobenzidine	10
56-55-3-----	Benzo(a)anthracene	10
218-01-9-----	Chrysene	10
117-81-7-----	bis(2-Ethylhexyl)phthalate	10
117-84-0-----	Di-n-octylphthalate	10
205-99-2-----	Benzo(b)fluoranthene	10
207-08-9-----	Benzo(k)fluoranthene	10
50-32-8-----	Benzo(a)pyrene	10
193-39-5-----	Indeno(1,2,3-cd)pyrene	10
53-70-3-----	Dibenz(a,h)anthracene	10
191-24-2-----	Benzo(g,h,i)perylene	10

JAC
6-29-93

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

OLM03.0

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EAPC7

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) WATER Lab Sample ID: 22611.11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: V9023.D

Level: (low/med) LOW Date Received: 06/16/95

% Moisture: _____ decanted: (Y/N) _____ Date Extracted: 06/17/95

Concentrated Extract Volume: 1000(uL) Date Analyzed: 06/19/95

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 68-12-2	Formamide, N,N-dimethyl-	2.923	17	NJ
2.				
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2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

GC Column(1): DB-17

ID: 0.32(mm)

GC Column(2): DB-1701

ID: 0.32(mm)

EPA SAMPLE NO.	TCX %REC #	TCX %REC #	DCB %REC #	DCB %REC #	OTHER (1)	OTHER (2)	TOT OUT
01 PBLKSH	80	89	93	98			0
02 EABD9	71	76	98	101			0
03 EABE1	70	81	107	92			0
04 EABE2	63	72	101	99			0
05 EABE2MS	78	91	120	111			0
06 EABE2MSD	76	84	91	89			0
07 EABE3	73	80	127	97			0
08 EAPC1	72	80	101	112			0
09 EAPC2	78	89	99	107			0
10 EAPC3	33	37	59	50			0
11 EAPC4	101	112	293*	193*			2
12 EAPC5	56	54	54	48			0
13 EAPC6	72	68	108	209*			1
14							
15							
16							
17							
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25							
26							
27							
28							
29							
30							

QC LIMITS

TCX = Tetrachloro-m-xylene (30-150)
 DCB = Decachlorobiphenyl (30-150)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

GC Column(1): DB-17

ID: 0.32(mm) GC Column(2): DB-1701 ID: 0.32(mm)

	EPA SAMPLE NO.	TCX %REC #	TCX %REC #	DCB %REC #	DCB %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKWU	86	103	110	110			0
02	EAPC7	93	106	94	97			0
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

QC LIMITS

TCX = Tetrachloro-m-xylene (30-150)
 DCB = Decachlorobiphenyl (30-150)

Column to be used to flag recovery values

* Values outside of QC limits

D Surrogate diluted out

3F
SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix Spike - EPA Sample NO.: EABE2

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
gamma-BHC(Lindane) _____	26.9	0	18.4	68	46-127
Heptachlor _____	26.9	0	20.6	77	35-130
Aldrin _____	26.9	0	18.8	70	34-132
Dieldrin _____	53.8	0	46.5	86	31-134
Endrin _____	53.8	0	47.7	89	42-139
4,4'-DDT _____	53.8	0	51.5	96	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC RPD	LIMITS REC.
gamma-BHC(Lindane) _____	26.9	16.7	62	9	50	46-127
Heptachlor _____	26.9	19.2	72	7	31	35-130
Aldrin _____	26.9	16.8	62	12	43	34-132
Dieldrin _____	53.8	43.5	81	6	38	31-134
Endrin _____	53.8	46.9	87	2	45	42-139
4,4'-DDT _____	53.8	49.8	92	4	50	23-134

* Column to be used to flag recovery values

* Values outside of QC limits

RPD: 0 out of 6 outside limits

Spike Recovery: 0 out of 12 outside limits

Comments: _____

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

PBLKSH

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Lab Sample ID: PBLKSH

Lab File ID: 2_001889

Matrix: (soil/water) SOIL

Extraction: (SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) Y

Date Extracted: 06/16/95

Date Analyzed (1): 06/20/95

Date Analyzed (2): 06/20/95

Time Analyzed (1): 0004

Time Analyzed (2): 0004

Instrument ID (1): HP_02A

Instrument ID (2): HP_02B

GC Column (1): DB-17 ID: 0.32(mm) GC Column (2): DB-1701 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EABD9	22611.01	06/20/95	06/20/95
02	EABE1	22611.02	06/20/95	06/20/95
03	EABE2	22611.03	06/20/95	06/20/95
04	EABE2MS	22611.03MS	06/20/95	06/20/95
05	EABE2MSD	22611.03MSD	06/20/95	06/20/95
06	EABE3	22611.04	06/20/95	06/20/95
07	EAPC1	22611.05	06/20/95	06/20/95
08	EAPC2	22611.06	06/20/95	06/20/95
09	EAPC3	22611.07	06/20/95	06/20/95
10	EAPC4	22611.08	06/20/95	06/20/95
11	EAPC5	22611.09	06/20/95	06/20/95
12	EAPC6	22611.10	06/20/95	06/20/95
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

Comments: _____

page 1 of 0

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

PBLKWU

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Lab Sample ID: PBLKWU

Lab File ID: 2_001881

Matrix: (soil/water) WATER

Extraction: (SepF/Cont/Sonc) SEPF

Sulfur Cleanup: (Y/N) N

Date Extracted: 06/17/95

Date Analyzed (1): 06/19/95

Date Analyzed (2): 06/19/95

Time Analyzed (1): 1954

Time Analyzed (2): 1954

Instrument ID (1): HP_02A

Instrument ID (2): HP_02B

GC Column (1): DB-17 ID: 0.32(mm) GC Column (2): DB-1701 ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01 EAPC7	22611.11	06/19/95	06/19/95
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
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25			
26			

Comments: _____

page 1 of 0

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

PBLKSH

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: PBLKSH

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: _____

% Moisture: 0 decanted: (Y/N) N

Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 06/20/95

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
319-84-6-----	alpha-BHC	1.7	U
319-85-7-----	beta-BHC	1.7	U
319-86-8-----	delta-BHC	1.7	U
58-89-9-----	gamma-BHC (Lindane)	1.7	U
76-44-8-----	Heptachlor	1.7	U
309-00-2-----	Aldrin	1.7	U
1024-57-3-----	Heptachlor epoxide	1.7	U
959-98-8-----	Endosulfan I	1.7	U
60-57-1-----	Dieldrin	3.3	U
72-55-9-----	4,4'-DDE	3.3	U
72-20-8-----	Endrin	3.3	U
33213-65-9-----	Endosulfan II	3.3	U
72-54-8-----	4,4'-DDD	3.3	U
1031-07-8-----	Endosulfan sulfate	3.3	U
50-29-3-----	4,4'-DDT	3.3	U
72-43-5-----	Methoxychlor	17	U
53494-70-5-----	Endrin ketone	3.3	U
7421-93-4-----	Endrin aldehyde	3.3	U
5103-71-9-----	alpha-Chlordane	1.7	U
5103-74-2-----	gamma-Chlordane	1.7	U
8001-35-2-----	Toxaphene	170	U
12674-11-2-----	Aroclor-1016	33	U
11104-28-2-----	Aroclor-1221	67	U
11141-16-5-----	Aroclor-1232	33	U
53469-21-9-----	Aroclor-1242	33	U
12672-29-6-----	Aroclor-1248	33	U
11097-69-1-----	Aroclor-1254	33	U
11096-82-5-----	Aroclor-1260	33	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

PBLKWU

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) WATER

Lab Sample ID: PBLKWU

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 06/17/95

Concentrated Extract Volume: 10000(uL)

Date Analyzed: 06/19/95

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/L	Q
---------	----------	----------------------	---

319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABD9

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: _____

% Moisture: 39 decanted: (Y/N) N

Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 06/20/95

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

319-84-6-----alpha-BHC	2.8	U
319-85-7-----beta-BHC	2.8	U
319-86-8-----delta-BHC	2.8	U
58-89-9-----gamma-BHC (Lindane)	2.8	U
76-44-8-----Heptachlor	2.8	U
309-00-2-----Aldrin	2.8	U
1024-57-3-----Heptachlor epoxide	2.8	U
959-98-8-----Endosulfan I	2.8	U
60-57-1-----Dieldrin	5.4	U
72-55-9-----4,4'-DDE	5.4	U
72-20-8-----Endrin	5.4	U
33213-65-9-----Endosulfan II	5.4	U
72-54-8-----4,4'-DDD	5.4	U
1031-07-8-----Endosulfan sulfate	5.4	U
50-29-3-----4,4'-DDT	5.4	U
72-43-5-----Methoxychlor	28	U
53494-70-5-----Endrin ketone	5.4	U
7421-93-4-----Endrin aldehyde	5.4	U
5103-71-9-----alpha-Chlordane	2.8	U
5103-74-2-----gamma-Chlordane	2.8	U
8001-35-2-----Toxaphene	280	U
12674-11-2-----Aroclor-1016	54	U
11104-28-2-----Aroclor-1221	110	U
11141-16-5-----Aroclor-1232	54	U
53469-21-9-----Aroclor-1242	54	U
12672-29-6-----Aroclor-1248	54	U
11097-69-1-----Aroclor-1254	54	U
11096-82-5-----Aroclor-1260	54	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE1

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.02

Sample wt/vol: 30.0 (g/mL) G

Lab File ID:

% Moisture: 33 decanted: (Y/N) N

Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 06/20/95

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
319-84-6-----	alpha-BHC	2.5		U
319-85-7-----	beta-BHC	2.5		U
319-86-8-----	delta-BHC	2.5		U
58-89-9-----	gamma-BHC (Lindane)	2.5		U
76-44-8-----	Heptachlor	2.5		U
309-00-2-----	Aldrin	2.5		U
1024-57-3-----	Heptachlor epoxide	2.5		U
959-98-8-----	Endosulfan I	2.5		U
60-57-1-----	Dieldrin	4.9		U
72-55-9-----	4,4'-DDE	4.9		U
72-20-8-----	Endrin	4.9		U
33213-65-9-----	Endosulfan II	4.9		U
72-54-8-----	4,4'-DDD	4.9		U
1031-07-8-----	Endosulfan sulfate	4.9		U
50-29-3-----	4,4'-DDT	4.9		U
72-43-5-----	Methoxychlor	25		U
53494-70-5-----	Endrin ketone	4.9		U
7421-93-4-----	Endrin aldehyde	4.9		U
5103-71-9-----	alpha-Chlordane	2.5		U
5103-74-2-----	gamma-Chlordane	2.5		U
8001-35-2-----	Toxaphene	250		U
12674-11-2-----	Aroclor-1016	49		U
11104-28-2-----	Aroclor-1221	100		U
11141-16-5-----	Aroclor-1232	49		U
53469-21-9-----	Aroclor-1242	49		U
12672-29-6-----	Aroclor-1248	49		U
11097-69-1-----	Aroclor-1254	49		U
11096-82-5-----	Aroclor-1260	49		U

319-84-6-----	alpha-BHC	2.5		U
319-85-7-----	beta-BHC	2.5		U
319-86-8-----	delta-BHC	2.5		U
58-89-9-----	gamma-BHC (Lindane)	2.5		U
76-44-8-----	Heptachlor	2.5		U
309-00-2-----	Aldrin	2.5		U
1024-57-3-----	Heptachlor epoxide	2.5		U
959-98-8-----	Endosulfan I	2.5		U
60-57-1-----	Dieldrin	4.9		U
72-55-9-----	4,4'-DDE	4.9		U
72-20-8-----	Endrin	4.9		U
33213-65-9-----	Endosulfan II	4.9		U
72-54-8-----	4,4'-DDD	4.9		U
1031-07-8-----	Endosulfan sulfate	4.9		U
50-29-3-----	4,4'-DDT	4.9		U
72-43-5-----	Methoxychlor	25		U
53494-70-5-----	Endrin ketone	4.9		U
7421-93-4-----	Endrin aldehyde	4.9		U
5103-71-9-----	alpha-Chlordane	2.5		U
5103-74-2-----	gamma-Chlordane	2.5		U
8001-35-2-----	Toxaphene	250		U
12674-11-2-----	Aroclor-1016	49		U
11104-28-2-----	Aroclor-1221	100		U
11141-16-5-----	Aroclor-1232	49		U
53469-21-9-----	Aroclor-1242	49		U
12672-29-6-----	Aroclor-1248	49		U
11097-69-1-----	Aroclor-1254	49		U
11096-82-5-----	Aroclor-1260	49		U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE2

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.03

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 38 decanted: (Y/N) N Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL) Date Analyzed: 06/20/95

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
---------	----------	-----------------	-------	---

319-84-6-----	alpha-BHC	2.7	U
319-85-7-----	beta-BHC	2.7	U
319-86-8-----	delta-BHC	2.7	U
58-89-9-----	gamma-BHC (Lindane)	2.7	U
76-44-8-----	Heptachlor	2.7	U
309-00-2-----	Aldrin	2.7	U
1024-57-3-----	Heptachlor epoxide	2.7	U
959-98-8-----	Endosulfan I	2.7	U
60-57-1-----	Dieldrin	5.3	U
72-55-9-----	4,4'-DDE	5.3	U
72-20-8-----	Endrin	5.3	U
33213-65-9-----	Endosulfan II	5.3	U
72-54-8-----	4,4'-DDD	5.3	U
1031-07-8-----	Endosulfan sulfate	5.3	U
50-29-3-----	4,4'-DDT	5.3	U
72-43-5-----	Methoxychlor	27	U
53494-70-5-----	Endrin ketone	5.3	U
7421-93-4-----	Endrin aldehyde	5.3	U
5103-71-9-----	alpha-Chlordane	2.7	U
5103-74-2-----	gamma-Chlordane	2.7	U
8001-35-2-----	Toxaphene	270	U
12674-11-2-----	Aroclor-1016	53	U
11104-28-2-----	Aroclor-1221	110	U
11141-16-5-----	Aroclor-1232	53	U
53469-21-9-----	Aroclor-1242	53	U
12672-29-6-----	Aroclor-1248	53	U
11097-69-1-----	Aroclor-1254	53	U
11096-82-5-----	Aroclor-1260	53	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EABE3

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.04

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 17 decanted: (Y/N) N Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL) Date Analyzed: 06/20/95

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
---------	----------	---	-------	---

319-84-6-----	alpha-BHC	2.0	U
319-85-7-----	beta-BHC	2.0	U
319-86-8-----	delta-BHC	2.0	U
58-89-9-----	gamma-BHC (Lindane)	2.0	U
76-44-8-----	Heptachlor	2.0	U
309-00-2-----	Aldrin	2.0	U
1024-57-3-----	Heptachlor epoxide	2.0	U
959-98-8-----	Endosulfan I	2.0	U
60-57-1-----	Dieldrin	4.0	U
72-55-9-----	4,4'-DDE	4.0	U
72-20-8-----	Endrin	4.0	U
33213-65-9-----	Endosulfan II	4.0	U
72-54-8-----	4,4'-DDD	4.0	U
1031-07-8-----	Endosulfan sulfate	4.0	U
50-29-3-----	4,4'-DDT	4.0	U
72-43-5-----	Methoxychlor	20	U
53494-70-5-----	Endrin ketone	4.0	U
7421-93-4-----	Endrin aldehyde	4.0	U
5103-71-9-----	alpha-Chlordane	2.0	U
5103-74-2-----	gamma-Chlordane	2.0	U
8001-35-2-----	Toxaphene	200	U
12674-11-2-----	Aroclor-1016	40	U
11104-28-2-----	Aroclor-1221	81	U
11141-16-5-----	Aroclor-1232	40	U
53469-21-9-----	Aroclor-1242	40	U
12672-29-6-----	Aroclor-1248	40	U
11097-69-1-----	Aroclor-1254	40	U
11096-82-5-----	Aroclor-1260	40	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EAPC1

Lab Name: SWL-TULSA

Contract: 68-D5-0026

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.05

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 32 decanted: (Y/N) N Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL) Date Analyzed: 06/20/95

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	UG/KG	Q
---------	----------	---	-------	---

319-84-6-----	alpha-BHC	2.5		U
319-85-7-----	beta-BHC	2.5		U
319-86-8-----	delta-BHC	2.5		U
58-89-9-----	gamma-BHC (Lindane)	2.5		U
76-44-8-----	Heptachlor	2.5		U
309-00-2-----	Aldrin	2.5		U
1024-57-3-----	Heptachlor epoxide	2.5		U
959-98-8-----	Endosulfan I	2.5		U
60-57-1-----	Dieldrin	4.8		U
72-55-9-----	4,4'-DDE	4.8		U
72-20-8-----	Endrin	4.8		U
33213-65-9-----	Endosulfan II	4.8		U
72-54-8-----	4,4'-DDD	4.8		U
1031-07-8-----	Endosulfan sulfate	4.8		U
50-29-3-----	4,4'-DDT	4.8		U
72-43-5-----	Methoxychlor	25		U
53494-70-5-----	Endrin ketone	4.8		U
7421-93-4-----	Endrin aldehyde	4.8		U
5103-71-9-----	alpha-Chlordane	2.5		U
5103-74-2-----	gamma-Chlordane	2.5		U
8001-35-2-----	Toxaphene	250		U
12674-11-2-----	Aroclor-1016	48		U
11104-28-2-----	Aroclor-1221	98		U
11141-16-5-----	Aroclor-1232	48		U
53469-21-9-----	Aroclor-1242	48		U
12672-29-6-----	Aroclor-1248	48		U
11097-69-1-----	Aroclor-1254	48		U
11096-82-5-----	Aroclor-1260	48		U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC2

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.06

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: _____

% Moisture: 41 decanted: (Y/N) N

Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 06/20/95

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

319-84-6-----	alpha-BHC	2.9	U
319-85-7-----	beta-BHC	2.9	U
319-86-8-----	delta-BHC	2.9	U
58-89-9-----	gamma-BHC (Lindane)	2.9	U
76-44-8-----	Heptachlor	2.9	U
309-00-2-----	Aldrin	2.9	U
1024-57-3-----	Heptachlor epoxide	2.9	U
959-98-8-----	Endosulfan I	2.9	U
60-57-1-----	Dieldrin	5.6	U
72-55-9-----	4,4'-DDE	5.6	U
72-20-8-----	Endrin	5.6	U
33213-65-9-----	Endosulfan II	5.6	U
72-54-8-----	4,4'-DDD	5.6	U
1031-07-8-----	Endosulfan sulfate	5.6	U
50-29-3-----	4,4'-DDT	5.6	U
72-43-5-----	Methoxychlor	29	U
53494-70-5-----	Endrin ketone	5.6	U
7421-93-4-----	Endrin aldehyde	5.6	U
5103-71-9-----	alpha-Chlordane	2.9	U
5103-74-2-----	gamma-Chlordane	2.9	U
8001-35-2-----	Toxaphene	290	U
12674-11-2-----	Aroclor-1016	56	U
11104-28-2-----	Aroclor-1221	110	U
11141-16-5-----	Aroclor-1232	56	U
53469-21-9-----	Aroclor-1242	56	U
12672-29-6-----	Aroclor-1248	56	U
11097-69-1-----	Aroclor-1254	56	U
11096-82-5-----	Aroclor-1260	56	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC3

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.07

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: _____

% Moisture: 50 decanted: (Y/N) N

Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 06/20/95

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
---------	----------	---	---

319-84-6-----	alpha-BHC	3.4	U
319-85-7-----	beta-BHC	3.4	U
319-86-8-----	delta-BHC	3.4	U
58-89-9-----	gamma-BHC (Lindane)	3.4	U
76-44-8-----	Heptachlor	3.4	U
309-00-2-----	Aldrin	3.4	U
1024-57-3-----	Heptachlor epoxide	3.4	U
959-98-8-----	Endosulfan I	3.4	U
60-57-1-----	Dieldrin	6.6	U
72-55-9-----	4, 4'-DDE	6.6	U
72-20-8-----	Endrin	6.6	U
33213-65-9-----	Endosulfan II	6.6	U
72-54-8-----	4, 4'-DDD	6.6	U
1031-07-8-----	Endosulfan sulfate	6.6	U
50-29-3-----	4, 4'-DDT	6.6	U
72-43-5-----	Methoxychlor	34	U
53494-70-5-----	Endrin ketone	6.6	U
7421-93-4-----	Endrin aldehyde	6.6	U
5103-71-9-----	alpha-Chlordane	3.4	U
5103-74-2-----	gamma-Chlordane	3.4	U
8001-35-2-----	Toxaphene	340	U
12674-11-2-----	Aroclor-1016	66	U
11104-28-2-----	Aroclor-1221	130	U
11141-16-5-----	Aroclor-1232	66	U
53469-21-9-----	Aroclor-1242	66	U
12672-29-6-----	Aroclor-1248	66	U
11097-69-1-----	Aroclor-1254	66	U
11096-82-5-----	Aroclor-1260	66	U

937

OLM03

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC4

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.08

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: _____

% Moisture: 43 decanted: (Y/N) N

Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 06/20/95

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
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319-84-6-----	alpha-BHC	3.0	U
319-85-7-----	beta-BHC	3.0	U
319-86-8-----	delta-BHC	3.0	U
58-89-9-----	gamma-BHC (Lindane)	3.0	U
76-44-8-----	Heptachlor	3.0	U
309-00-2-----	Aldrin	3.0	U
1024-57-3-----	Heptachlor epoxide	3.0	U
959-98-8-----	Endosulfan I	3.0	U
60-57-1-----	Dieldrin	6.2	
72-55-9-----	4,4'-DDE	5.8	U
72-20-8-----	Endrin	5.8	U
33213-65-9-----	Endosulfan II	5.8	U
72-54-8-----	4,4'-DDD	5.8	U
1031-07-8-----	Endosulfan sulfate	5.8	U
50-29-3-----	4,4'-DDT	26	
72-43-5-----	Methoxychlor	30	U
53494-70-5-----	Endrin ketone	5.8	U
7421-93-4-----	Endrin aldehyde	5.8	U
5103-71-9-----	alpha-Chlordane	3.0	U
5103-74-2-----	gamma-Chlordane	3.0	U
8001-35-2-----	Toxaphene	300	U
12674-11-2-----	Aroclor-1016	58	U
11104-28-2-----	Aroclor-1221	120	U
11141-16-5-----	Aroclor-1232	58	U
53469-21-9-----	Aroclor-1242	58	U
12672-29-6-----	Aroclor-1248	58	U
11097-69-1-----	Aroclor-1254	58	U
11096-82-5-----	Aroclor-1260	58	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC5

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) SOIL

Lab Sample ID: 22611.09

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: _____

% Moisture: 36 decanted: (Y/N) N

Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC

Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL)

Date Analyzed: 06/20/95

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Q

319-84-6-----alpha-BHC	2.6	U
319-85-7-----beta-BHC	2.6	U
319-86-8-----delta-BHC	2.6	U
58-89-9-----gamma-BHC (Lindane)	2.6	U
76-44-8-----Heptachlor	2.6	U
309-00-2-----Aldrin	2.6	U
1024-57-3-----Heptachlor epoxide	2.6	U
959-98-8-----Endosulfan I	2.6	U
60-57-1-----Dieldrin	5.2	U
72-55-9-----4,4'-DDE	5.2	U
72-20-8-----Endrin	5.2	U
33213-65-9-----Endosulfan II	5.2	U
72-54-8-----4,4'-DDD	5.2	U
1031-07-8-----Endosulfan sulfate	5.2	U
50-29-3-----4,4'-DDT	23	P
72-43-5-----Methoxychlor	26	U
53494-70-5-----Endrin ketone	5.2	U
7421-93-4-----Endrin aldehyde	5.2	U
5103-71-9-----alpha-Chlordane	2.6	U
5103-74-2-----gamma-Chlordane	2.6	U
8001-35-2-----Toxaphene	260	U
12674-11-2-----Aroclor-1016	52	U
11104-28-2-----Aroclor-1221	100	U
11141-16-5-----Aroclor-1232	52	U
53469-21-9-----Aroclor-1242	52	U
12672-29-6-----Aroclor-1248	52	U
11097-69-1-----Aroclor-1254	52	U
11096-82-5-----Aroclor-1260	52	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC6

Lab Code: SWOK Case No.: 23669 SAS No.: SDG No.: EABD9

Matrix: (soil/water) SOIL Lab Sample ID: 22611.10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 35 decanted: (Y/N) N Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 06/16/95

Concentrated Extract Volume: 5000(uL) Date Analyzed: 06/20/95

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y Sulfur Cleanup: (Y/N) Y

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	UG/KG	Q
319-84-6-----	alpha-BHC	2.6	U
319-85-7-----	beta-BHC	2.6	U
319-86-8-----	delta-BHC	2.6	U
58-89-9-----	gamma-BHC (Lindane)	2.6	U
76-44-8-----	Heptachlor	2.6	U
309-00-2-----	Aldrin	2.6	U
1024-57-3-----	Heptachlor epoxide	2.6	U
959-98-8-----	Endosulfan I	2.6	U
60-57-1-----	Dieldrin	5.1	U
72-55-9-----	4,4'-DDE	5.1	U
72-20-8-----	Endrin	5.1	U
33213-65-9-----	Endosulfan II	5.1	U
72-54-8-----	4,4'-DDD	5.1	U
1031-07-8-----	Endosulfan sulfate	5.1	U
50-29-3-----	4,4'-DDT	5.1	U
72-43-5-----	Methoxychlor	26	U
53494-70-5-----	Endrin ketone	5.1	U
7421-93-4-----	Endrin aldehyde	5.1	U
5103-71-9-----	alpha-Chlordane	2.6	U
5103-74-2-----	gamma-Chlordane	2.6	U
8001-35-2-----	Toxaphene	260	U
12674-11-2-----	Aroclor-1016	51	U
11104-28-2-----	Aroclor-1221	100	U
11141-16-5-----	Aroclor-1232	51	U
53469-21-9-----	Aroclor-1242	51	U
12672-29-6-----	Aroclor-1248	51	U
11097-69-1-----	Aroclor-1254	51	U
11096-82-5-----	Aroclor-1260	51	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68-D5-0026

EAPC7

Lab Code: SWOK

Case No.: 23669

SAS No.:

SDG No.: EABD9

Matrix: (soil/water) WATER

Lab Sample ID: 22611.11

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: _____

% Moisture: _____ decanted: (Y/N) _____

Date Received: 06/16/95

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 06/17/95

Concentrated Extract Volume: 10000(uL)

Date Analyzed: 06/19/95

Injection Volume: 1.0(uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	UG/L	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U
12674-11-2-----	Aroclor-1016	1.0	U
11104-28-2-----	Aroclor-1221	2.0	U
11141-16-5-----	Aroclor-1232	1.0	U
53469-21-9-----	Aroclor-1242	1.0	U
12672-29-6-----	Aroclor-1248	1.0	U
11097-69-1-----	Aroclor-1254	1.0	U
11096-82-5-----	Aroclor-1260	1.0	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on June 27, 1995

FROM: Dennis Wesolowski, Chief (SQC-14J)
Contract Analytical Services Section

TO: Data User:

EPA Patricia Scott
D.Wesolowski

07/10/95

We have reviewed the data for the following case:

SITE NAME: Celotex Corp Dump (C)

CASE NUMBER: 23669 SDG NUMBER: EABD9

Number and Type of Samples: 12 (Soil/water)

Sample Numbers: EABD9, EABE1-3, EAPC1-8

Laboratory: SWOK Hrs. for Review: 15.5

Following are our findings:

The data are acceptable and usable with the qualifications described in the attached narrative.

Patricia Scott

cc: Regional TPO

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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The soil samples (EABE1-EABE3, EAPC1-EAPC6, EABD9) and water samples (EAPC7, EAPC8) were collected on 06/15/95. The laboratory received ten (10) soil and two (2) water samples on 06/16/95 in good condition for organic analysis following the SOW OLM03.1. Water sample EAPC7 was analyzed for VOA only. The remaining samples were analyzed for the full list of organic analysis.

Sample EABE2 was used as the low level soil matrix spike/spike duplicates for the VOA, SVOA and Pest/PCB fractions. No matrix spike/spike duplicates was analyzed for the water samples since the only two water samples for this data case are the field blank and trip blank.

Sample EAPC7 and EAPC8 were identified as the field blank and trip blank, respectively. None of the samples in this case were identified as the field duplicates.

The VOA samples were analyzed within the holding time of fourteen (14) days for the soil and preserved water samples. The SVOA and Pest/PCB samples were extracted within the holding time of seven (7) days for the water samples and fourteen (14) days for the soil samples. The sample extracts were analyzed within forty (40) days following the extraction.

The reviewer's narrative and data qualifiers from CADRE 2.1 are noted in the following pages.

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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Below is a summary of the out-of-control audits and the possible effect on the data for this case.

1. HOLDING TIME

DC-46: The following volatile samples are not fully qualified for technical holding time due to missing information. Affected hits and non-detects are flagged "M".

EAPC7, EAPC8

The "M" flag for the above samples was changed to the final flag by the reviewer.

2. GC/MS TUNING PERFORMANCE

No problems found for this qualification.

3. CALIBRATION

DC-16: The following volatile samples are associated with a continuing calibration which has no corresponding initial calibration. Hits and non-detects are flagged "M".

EABD9, EABE1, EABE2, EABE2MS, EABE2MSD, EABE3, EAPC1, EAPC1RE, EAPC2, EAPC3, EAPC4, EAPC5, EAPC5RE, EAPC6, EAPC6RE, VBLK1, VBLK2

The "M" flag for the above samples was changed to the final flag by the reviewer.

DC-22: The following volatile samples are associated with a continuing calibration whose corresponding initial calibration has percent relative standard deviation (%RSD) outside primary criteria. Hits are qualified "J" and non-detects are flagged "VS".

Bromomethane
EAPC7, EAPC8, VBLK3

Acetone
EAPC7, EAPC8, VBLK3

The "VS" flag for the above samples was changed to the final flag by the reviewer.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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DC-94: The following semivolatile samples are associated with an initial calibration with relative response factors (RRFs) outside primary criteria. Hits are flagged "VS" and non-detects are qualified "R".

2,4-Dinitrophenol
EABD9, EABE2, EAPC7

The "VS" and "R" flags for the above samples were changed to the final flag by the reviewer

DC-100: The following semivolatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

4-Chloro-3-methylphenol
EAPC4

Hexachlorocyclopentadiene
EABE1, EABE2MS, EABE2MSD, EABE3, EAPC1, EAPC2, EAPC3, EAPC4,
EAPC5, EAPC6, SBLK1, SBLK2

4-Nitroaniline
EAPC4

Fluoranthene
EAPC4

Pyrene
EAPC4

4. METHOD BLANK

DC-206: The following semivolatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

EABD9
Diethylphthalate, bis(2-Ethylhexyl)phthalate

EABE1
bis(2-Ethylhexyl)phthalate

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

**LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)**

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**EABE2
bis(2-Ethylhexyl)phthalate**

**EABE2MS
bis(2-Ethylhexyl)phthalate**

**EABE2MSD
Diethylphthalate, bis(2-Ethylhexyl)phthalate**

**EABE3
bis(2-Ethylhexyl)phthalate**

**EAPC1
bis(2-Ethylhexyl)phthalate**

**EAPC2
bis(2-Ethylhexyl)phthalate**

**EAPC3
bis(2-Ethylhexyl)phthalate**

**EAPC4
bis(2-Ethylhexyl)phthalate**

**EAPC5
bis(2-Ethylhexyl)phthalate**

**EAPC6
bis(2-Ethylhexyl)phthalate**

**EAPC7
Diethylphthalate, Di-n-butylphthalate**

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

DC-35: The following volatile samples have system monitoring compound recoveries above the upper limit of the criteria window. Hits are qualified "J" and non-detects are not flagged.

EAPC5, EAPC6

DC-174: The following pesticide samples have surrogate percent recoveries which exceed the upper limit of the criteria window. Hits are qualified "J" and non-detects are not flagged.

**Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995**

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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EAPC4, EAPC6

DC-177: The following pesticide samples have surrogate percent recoveries outside the lower limit of the criteria window, but greater than 10%. Hits are qualified "J" and non-detects are qualified "UJ".

EAPC3, EAPC5

The surrogate recoveries for EAPC3 and EAPC5 were within the current QC limits. Therefore, the "J" and "UJ" flag for EAPC3 and EAPC5 were changed to the final flag by the reviewer.

6. MATRIX SPIKE/SPIKE DUPLICATES

No problems found for this qualification.

7. FIELD BLANK AND FIELD DUPLICATE

NA

8. INTERNAL STANDARDS

DC-43: The following volatile samples have internal standard area counts that are outside the lower limit of primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

EABE2

4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene,
1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene,
Styrene, Xylene (total)

EABE2MSD

4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene,
1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene,
Styrene, Xylene (total)

EAPC1

4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene,
1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene,
Styrene, Xylene (total)

EAPC1RE

4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene,
1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene,

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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Styrene, Xylene (total)

EAPC5

Chloromethane, Bromomethane, Vinyl Chloride, Chloroethane, Methylene Chloride, Acetone, Carbon Disulfide, 1,1-Dichloroethene, 1,1-Dichloroethane, 1,2-Dichloroethene (total), Chloroform, 1,2-Dichloroethane, 2-Butanone, 1,1,1-Trichloroethane, Carbon Tetrachloride, Bromodichloromethane, 1,2-Dichloropropane, cis-1,3-Dichloropropene, Trichloroethene, Dibromochloromethane, 1,1,2-Trichloroethane, Benzene, trans-1,3-Dichloropropene, Bromoform

EAPC5RE

4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

EAPC6

1,1,1-Trichloroethane, Carbon Tetrachloride, Bromodichloromethane, 1,2-Dichloropropane, cis-1,3-Dichloropropene, Trichloroethene, Dibromochloromethane, 1,1,2-Trichloroethane, Benzene, trans-1,3-Dichloropropene, Bromoform, 4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

EAPC6RE

4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

DC-44: The following volatile samples have internal standard area counts outside expanded criteria. Hits are qualified "J" and non-detects are qualified "R".

EAPC5

4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene, 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene, Styrene, Xylene (total)

9.COMPOUND IDENTIFICATION

NA

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

DC-45: The following volatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

EADB9

Methylene Chloride, Toluene

EABE1

Methylene Chloride

EABE2

Methylene Chloride, 1,1,1-Trichloroethane

EABE2MS

Methylene Chloride, 1,1,1-Trichloroethane

EABE2MSD

Methylene Chloride, 1,1,1-Trichloroethane

EABE3

Methylene Chloride

EAPC1

Methylene Chloride

EAPC1RE

Methylene Chloride, 1,1,1-Trichloroethane

EAPC3

Methylene Chloride, Toluene

EAPC4

Methylene Chloride

EAPC5

Methylene Chloride

EAPC5RE

Methylene Chloride, 1,1,1-Trichloroethane

EAPC6

Methylene Chloride

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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EAPC6RE
Methylene Chloride

EAPC8
Methylene Chloride

DC-110: The following semivolatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

EABD9
Diethylphthalate, Chrysene, bis(2-Ethylhexyl)phthalate,
Benzo(b)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene,
Benzo(g,h,i)perylene

EABE1
bis(2-Ethylhexyl)phthalate

EABE2
Phenanthrene, Di-n-butylphthalate, Fluoranthene, Pyrene,
Benzo(a)anthracene, Chrysene, bis(2-Ethylhexyl)phthalate,
Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene,
Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene

EABE2MS
Phenanthrene, Fluoranthene, Benzo(a)anthracene, Chrysene,
bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene, Benzo(k)-
fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)-
perylene

EABE2MSD
Diethylphthalate, Phenanthrene, Di-n-butylphthalate,
Fluoranthene, Benzo(a)anthracene, Chrysene, bis(2-Ethylhexyl)-
phthalate, Benzo(b)fluoranthene, Benzo(k)fluoranthene,
Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene

EABE3
Di-n-butylphthalate, bis(2-Ethylhexyl)phthalate

EAPC1
Phenanthrene, Fluoranthene, Pyrene, Benzo(a)anthracene,
Chrysene, bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene,
Benzo(k)fluoranthene, Benzo(a)pyrene

EAPC2

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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4-Methylphenol, Phenanthrene, Fluoranthene, Pyrene,
Butylbenzylphthalate, Benzo(a)anthracene, Chrysene,
bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene, Benzo(k)-
fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene,
Benzo(g,h,i)perylene

EAPC3

4-Methylphenol, Phenanthrene, Di-n-butylphthalate, Fluoranthene,
Pyrene, Chrysene, bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene,
Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene

EAPC4

4-Methylphenol, Phenanthrene, Anthracene, Fluoranthene, Pyrene,
Benzo(a)anthracene, Chrysene, bis(2-Ethylhexyl)phthalate,
Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene

EAPC5

Di-n-butylphthalate, Fluoranthene, Pyrene, Chrysene,
bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene,
Benzo(g,h,i)perylene

EAPC6

Di-n-butylphthalate, Fluoranthene, Pyrene, Chrysene,
bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene,
Indeno(1,2,3-cd)pyrene

EAPC7

Diethylphthalate, Di-n-butylphthalate

SBLK1

Diethylphthalate, bis(2-Ethylhexyl)phthalate

SBLK2

Diethylphthalate, Di-n-butylphthalate, bis(2-Ethylhexyl)-
phthalate

DC-159: The quantitation limits of the following pesticide
samples could not be calculated due to missing information. Hits
are qualified "M" and non-detects are not flagged.

PBLKSH

The "M" flag for the above samples was changed to the final flag
by the reviewer.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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For the VOA, SVOA and Pest/PCB results of this section, if the compounds were the laboratory contaminants which were also detected in the associated blanks and the sample results are less than the associated blank results by 10X (for common laboratory contaminants) or 5X (for none common laboratory contaminants). The flag for these results will remain as non-detected "U" as mention in section 4 (method blank).

11. SYSTEM PERFORMANCE

No problems found for this qualification.

12. ADDITIONAL INFORMATION

None

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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13. CADRE SUMMARY OF THE RESULTS

Below is the final flag for the sample results of this data package:

FILENAME: EADB9 DATE: 06/30/95 TIME: 09:19		
CRITERIA FILE: FGDR091		
DATA		
Original		X Qualified
QUALIFICATIONS PERFORMED		
X	Quantitation Limit Percent Moisture	Sample Cleanup ICS
X	Holding Time	LCS
X	Calibration	Duplicates
X	Matrix Spike	Furnace AA QC
X	IPC	Serial Dilutions
X	Internal Standards	Sample Result Verif.
X	SMC/Surrogate	Laboratory Blanks
X	System Performance	X Field QC
PRINT NON-DETECTS		
X	Yes	No
PRINT REJECTED RESULTS		
X	Yes	No

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET						
CASE NO: 23669	SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOMA					
SDG NO: EADB9	EADB9	EABE1	EABE2	EABE2MS	EABE2MSD	
EPA SAMPLE NUMBER:						
REGIONAL SAMPLE NUMBER:						
SAMPLE LOCATION:						
SAMPLE TYPE:	Routine Sample	Routine Sample	Routine Sample	Matrix Spike	Matrix Spike Du	
MATRIX/ANALYSIS:	SOIL/LOW	SOIL/LOW	SOIL/LOW	SOIL/LOW	SOIL/LOW	
DILUTION FACTOR:	1.0	1.0	1.0	1.0	1.0	
PERCENT MOISTURE:	39	33	38	38	38	
VOA						
Chloromethane	16	U	15	U	16	U
Bromomethane	16	U	15	U	16	U
Vinyl Chloride	16	U	15	U	16	U
Chloroethane	16	U	15	U	16	U
Methylene Chloride	10	J	11	J	12	J
Acetone	65		30	47	44	47
Carbon Disulfide	16	U	15	U	16	U
1,1-Dichloroethene	16	U	15	U	60	63
1,1-Dichloroethane	16	U	15	U	16	U
1,2-Dichloroethene (total)	16	U	15	U	16	U
Chloroform	16	U	15	U	16	U
1,2-Dichloroethane	16	U	15	U	16	U
2-Butanone	16	U	15	U	16	U
1,1,1-Trichloroethane	16	U	15	U	7	J
Carbon Tetrachloride	16	U	15	U	16	U
Bromodichloromethane	16	U	15	U	16	U
1,2-Dichloropropane	16	U	15	U	16	U
cis-1,3-Dichloropropene	16	U	15	U	16	U
Trichloroethene	16	U	15	U	16	U
Dibromochloromethane	16	U	15	U	16	U
1,1,2-Trichloroethane	16	U	15	U	16	U
Benzene	16	U	15	U	75	82
trans-1,3-Dichloropropene	16	U	15	U	16	U
Bromoform	16	U	15	U	16	U
4-Methyl-2-Pentanone	16	U	15	U	16	U
2-Hexanone	16	U	15	U	16	U
Tetrachloroethene	16	U	15	U	16	U
1,1,2,2-Tetrachloroethane	16	U	15	U	16	U
Toluene	2	J	15	U	16	U
Chlorobenzene	16	U	15	U	82	90
Ethylbenzene	16	U	15	U	68	J
Styrene	16	U	15	U	16	U
Xylene (total)	16	U	15	U	16	U

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB

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CASE: 23669

SDG: EADB9

SITE: Celotex Corp. Dump (IL)

TCL QUALIFIED SPREADSHEET							SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOMA
CASE NO: 23669 SDG NO: EADB9	EABE3	EAPC1	EAPC1RE	EAPC2	EAPC3		
EPA SAMPLE NUMBER:							
REGIONAL SAMPLE NUMBER:							
SAMPLE LOCATION:							
SAMPLE TYPE:	Routine Sample						
MATRIX/ANALYSIS:	SOIL/LOW	SOIL/LOW	SOIL/LOW	SOIL/LOW	SOIL/LOW		
DILUTION FACTOR:	1.0	1.0	1.0	1.0	1.0		
PERCENT MOISTURE:	17	32	32	41	50		
VOA							
Chloromethane	12 U	15 U	15 U	17 U	20 U		
Bromomethane	12 U	15 U	15 U	17 U	20 U		
Vinyl Chloride	12 U	15 U	15 U	17 U	20 U		
Chloroethane	12 U	15 U	15 U	17 U	20 U		
Methylene Chloride	9 J	10 J	9 J	17 JJ	8 J		
Acetone	12 U	15 U	15 U	17 U	130 U		
Carbon Disulfide	12 U	15 U	15 U	17 U	20 U		
1,1-Dichloroethene	12 U	15 U	15 U	17 U	20 U		
1,1-Dichloroethane	12 U	15 U	15 U	17 U	20 U		
1,2-Dichloroethene (total)	12 U	15 U	15 U	17 U	20 U		
Chloroform	12 U	15 U	15 U	17 U	20 U		
1,2-Dichloroethane	12 U	15 U	15 U	17 U	20 U		
2-Butanone	12 U	15 U	15 U	17 U	20 U		
1,1,1-Trichloroethane	13 U	15 U	14 J	17 U	20 U		
Carbon Tetrachloride	12 U	15 U	15 U	17 U	20 U		
Bromodichloromethane	12 U	15 U	15 U	17 U	20 U		
1,2-Dichloropropane	12 U	15 U	15 U	17 U	20 U		
cis-1,3-Dichloropropene	12 U	15 U	15 U	17 U	20 U		
Trichloroethene	12 U	15 U	15 U	17 U	20 U		
Dibromochloromethane	12 U	15 U	15 U	17 U	20 U		
1,1,2-Trichloroethane	12 U	15 U	15 U	17 U	20 U		
Benzene	12 U	15 U	15 U	17 U	20 U		
trans-1,3-Dichloropropene	12 U	15 U	15 U	17 U	20 U		
Bromoform	12 U	15 U	15 U	17 U	20 U		
4-Methyl-2-Pentanone	12 U	15 UJ	15 UJ	17 U	20 U		
2-Hexanone	12 U	15 UJ	15 UJ	17 U	20 U		
Tetrachloroethene	12 U	15 UJ	15 UJ	17 U	20 U		
1,1,2,2-Tetrachloroethane	12 U	15 UJ	15 UJ	17 U	20 U		
Toluene	12 U	15 UJ	15 UJ	28 U	7 J		
Chlorobenzene	12 U	15 UJ	15 UJ	17 U	20 U		
Ethylbenzene	12 U	15 UJ	15 UJ	17 U	20 U		
Styrene	12 U	15 UJ	15 UJ	17 U	20 U		
Xylene (total)	12 U	15 UJ	15 UJ	17 U	20 U		

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.

Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET						
CASE NO: 23669 SDG NO: EADB9	SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOM					
EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EAPC4 Routine Sample SOIL/LOW 1.0 43	EAPCS Routine Sample SOIL/LOW 1.0 36	EAPCSRE Routine Sample SOIL/LOW 1.0 36	EAPC6 Routine Sample SOIL/LOW 1.0 35	EAPC6RE Routine Sample SOIL/LOW 1.0 35	
VOA						
Chloromethane	18 U	16 UJ	16 U	15 U	15 U	15 U
Bromomethane	18 U	16 UJ	16 U	15 U	15 U	15 U
Vinyl Chloride	18 U	16 UJ	16 U	15 U	15 U	15 U
Chloroethane	18 U	16 UJ	16 U	15 U	15 U	15 U
Methylene Chloride	6 J	11 J	5 J	9 J	7 J	7 J
Acetone	18 U	16 UJ	16 U	15 U	15 U	15 U
Carbon Disulfide	18 U	16 UJ	16 U	15 U	15 U	15 U
1,1-Dichloroethene	18 U	16 UJ	16 U	15 U	15 U	15 U
1,1-Dichloroethane	18 U	16 UJ	16 U	15 U	15 U	15 U
1,2-Dichloroethene (total)	18 U	16 UJ	16 U	15 U	15 U	15 U
Chloroform	18 U	16 UJ	16 U	15 U	15 U	15 U
1,2-Dichloroethane	18 U	16 UJ	16 U	15 U	15 U	15 U
2-Butanone	18 U	16 UJ	16 U	15 U	15 U	15 U
1,1,1-Trichloroethane	47	16 J	9 J	15 UJ	15 U	15 U
Carbon Tetrachloride	18 U	16 UJ	16 U	15 U	15 U	15 U
Bromodichloromethane	18 U	16 UJ	16 U	15 U	15 U	15 U
1,2-Dichloropropane	18 U	16 UJ	16 U	15 U	15 U	15 U
cis-1,3-Dichloropropene	18 U	16 UJ	16 U	15 U	15 U	15 U
Trichloroethene	18 U	16 UJ	16 U	15 U	15 U	15 U
Dibromochloromethane	18 U	16 UJ	16 U	15 U	15 U	15 U
1,1,2-Trichloroethane	18 U	16 UJ	16 U	15 U	15 U	15 U
Jenzen	18 U	16 UJ	16 U	15 U	15 U	15 U
trans-1,3-Dichloropropene	18 U	16 UJ	16 U	15 U	15 U	15 U
Bromoform	18 U	16 UJ	16 U	15 U	15 U	15 U
4-Methyl-2-Pentanone	18 U	16 R	16 UJ	15 UJ	15 UJ	15 UJ
2-Hexanone	18 U	16 R	16 UJ	15 UJ	15 UJ	15 UJ
Tetrachloroethene	18 U	16 R	16 UJ	15 UJ	15 UJ	15 UJ
1,1,2,2-Tetrachloroethane	18 U	16 R	16 UJ	15 UJ	15 UJ	15 UJ
Toluene	18 U	16 R	16 UJ	15 UJ	15 UJ	15 UJ
Chlorobenzene	18 U	16 R	16 UJ	15 UJ	15 UJ	15 UJ
Ethylbenzene	18 U	16 R	16 UJ	15 UJ	15 UJ	15 UJ
Styrene	18 U	16 R	16 UJ	15 UJ	15 UJ	15 UJ
Xylene (total)	18 U	16 R	16 UJ	15 UJ	15 UJ	15 UJ

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET

CASE NO: 23669
SDG NO: EADB9

SITE:
LABORATORY: SOUTHWEST LABS OF OKLAHOMA

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EAPC7 Routine Sample WATER/LOW 1.0	EAPC8 Routine Sample WATER/LOW 1.0	VBLK1 Method Blank SOIL/LOW 1.0 0	VBLK2 Method Blank SOIL/LOW 1.0 0	VBLK3 Method Blank WATER/LOW 1.0
VOA					
Chloromethane	10 U	10 U	10 U	10 U	10 U
Bromomethane	10 UJ	10 UJ	10 U	10 U	10 UJ
Vinyl Chloride	10 U	10 U	10 U	10 U	10 U
Chloroethane	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	11 J	4 J	10 UJ	10 U	10 U
Acetone	21 J	24 J	10 U	10 U	10 UJ
Carbon Disulfide	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U	10 U
Carbon Tetrachloride	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	10 U	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U
Xylene (total)	10 U	10 U	10 U	10 U	10 U

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB

CASE: 23669

SDG: EADB9

SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET						
CASE NO: 23669 SDG NO: EADB9	SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOMA					
EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EADB9 Routine Sample SOIL/LOW 1.0 39	EABE1 Routine Sample SOIL/LOW 1.0 33	EABE2 Routine Sample SOIL/LOW 1.0 38	EABE2MS Matrix Spike SOIL/LOW 1.0 38	EABE2MSD Matrix Spike Du SOIL/LOW 1.0 38	
BNA						
Phenol	540 U	490 U	530 U	2900	3000	
bis(2-Chloroethyl) ether	540 U	490 U	530 U	530 U	530 U	U
2-Chlorophenol	540 U	490 U	530 U	2900	3100	
1,3-Dichlorobenzene	540 U	490 U	530 U	530 U	530 U	
1,4-Dichlorobenzene	540 U	490 U	530 U	1700	1700	
1,2-Dichlorobenzene	540 U	490 U	530 U	530 U	530 U	
2-Methylphenol	540 U	490 U	530 U	530 U	530 U	
2,2'-oxybis(1-Chloropropane	540 U	490 U	530 U	530 U	530 U	
4-Methylphenol	540 U	490 U	530 U	530 U	530 U	
N-Nitroso-di-n-propylamine	540 U	490 U	530 U	2000	2100	
Hexachloroethane	540 U	490 U	530 U	530 U	530 U	
Nitrobenzene	540 U	490 U	530 U	530 U	530 U	
Isophorone	540 U	490 U	530 U	530 U	530 U	
2-Nitrophenol	540 U	490 U	530 U	530 U	530 U	
2,4-Dimethylphenol	540 U	490 U	530 U	530 U	530 U	
bis(2-Chloroethoxy) methane	540 U	490 U	530 U	530 U	530 U	
2,4-Dichlorophenol	540 U	490 U	530 U	530 U	530 U	
1,2,4-Trichlorobenzene	540 U	490 U	530 U	1900	2000	
Naphthalene	540 U	490 U	530 U	530 U	530 U	
4-Chloroaniline	540 U	490 U	530 U	530 U	530 U	
Hexachlorobutadiene	540 U	490 U	530 U	530 U	530 U	
4-Chloro-3-methylphenol	540 U	490 U	530 U	3400	3300	
2-Methylnaphthalene	540 U	490 U	530 U	530 U	530 U	
Hexachlorocyclopentadiene	540 UJ	490 UJ	530 UJ	530 UJ	530 UJ	
2,4,6-Trichlorophenol	540 U	490 U	530 U	530 U	530 U	
2,4,5-Trichlorophenol	1300 U	1200 U	1300 U	1300 U	1300 U	
2-Chloronaphthalene	540 U	490 U	530 U	530 U	530 U	
2-Nitroaniline	1300 U	1200 U	1300 U	1300 U	1300 U	
Dimethylphthalate	540 U	490 U	530 U	530 U	530 U	
Acenaphthylene	540 U	490 U	530 U	530 U	530 U	
2,6-Dinitrotoluene	540 U	490 U	530 U	530 U	530 U	
3-Nitroaniline	1300 U	1200 U	1300 U	1300 U	1300 U	
Acenaphthene	540 U	490 U	530 U	2200	2200	
2,4-Dinitrophenol	1300 UJ	1200 U	1300 UJ	1300 U	1300 U	
4-Nitrophenol	1300 U	1200 U	1300 U	3500	3300	
Dibenzofuran	540 U	490 U	530 U	530 U	530 U	
2,4-Dinitrotoluene	540 U	490 U	530 U	2200	2100	

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
 Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
 Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB

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CASE: 23669

SDG: EABD9

SITE: Celotex Corp. Dump (IL)

TCL QUALIFIED SPREADSHEET						SITE:	
						LABORATORY: SOUTHWEST LABS OF OKLAHOMA	
EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EABD9 Routine Sample SOIL/LOW 1.0 39	EABE1 Routine Sample SOIL/LOW 1.0 33	EABE2 Routine Sample SOIL/LOW 1.0 38	EABE2MS Matrix Spike SOIL/LOW 1.0 38	EABE2MSD Matrix Spike Du SOIL/LOW 1.0 38		
BNA							
Diethylphthalate	540 U	490 U	530 U	530 U	530 U	530 U	530 U
4-Chlorophenyl-phenyl ether	540 U	490 U	530 U	530 U	530 U	530 U	530 U
Fluorene	540 U	490 U	530 U	530 U	530 U	530 U	530 U
4-Nitroaniline	1300 U	1200 U	1300 U	1300 U	1300 U	1300 U	1300 U
4,6-Dinitro-2-methylphenol	1300 U	1200 U	1300 U	1300 U	1300 U	1300 U	1300 U
N-nitrosodiphenylamine	540 U	490 U	530 U	530 U	530 U	530 U	530 U
4-Bromophenyl-phenylether	540 U	490 U	530 U	530 U	530 U	530 U	530 U
Hexachlorobenzene	540 U	490 U	530 U	530 U	530 U	530 U	530 U
Pentachlorophenol	1300 U	1200 U	1300 U	2800		3000	
Phenanthrene	540 U	490 U	100 J	40 J	68 J		J
Anthracene	540 U	490 U	530 U	530 U	530 U	530 U	
Carbazole	540 U	490 U	530 U	530 U	530 U	530 U	
Di-n-butylphthalate	540 U	490 U	34 J	530 U	33 J		J
Fluoranthene	540 U	490 U	360 J	150 J	110 J		J
Pyrene	540 U	490 U	250 J	2600	2600		
Butylbenzylphthalate	540 U	490 U	530 U	530 U	530 U	530 U	
3,3'-Dichlorobenzidine	540 U	490 U	530 U	530 U	530 U	530 U	
Benzo(a)anthracene	540 U	490 U	120 J	70 J	42 J		J
Chrysene	29 J	490 U	140 J	79 J	58 J		J
bis(2-Ethylhexyl)phthalate	540 U	490 U	530 U	530 U	530 U	530 U	
Di-n-octylphthalate	540 U	490 U	530 U	530 U	530 U	530 U	
Benzo(b)fluoranthene	37 J	490 U	120 J	56 J	49 J		J
Benzo(k)fluoranthene	540 U	490 U	120 J	59 J	39 J		
Benzo(a)pyrene	92 J	490 U	110 J	65 J	40 J		J
Indeno(1,2,3-cd)pyrene	42 J	490 U	67 J	50 J	35 J		J
Dibenz(a,h)anthracene	540 U	490 U	530 U	530 U	530 U	530 U	
Benzo(g,h,i)perylene	360 J	490 U	68 J	50 J	37 J		J

FILENAME: EABD9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.

Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
 Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET							SITE:	
							LABORATORY: SOUTHWEST LABS OF OKLAHOMA	
EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EABE3 Routine Sample SOIL/LOW 1.0 17	EAPC1 Routine Sample SOIL/LOW 1.0 32	EAPC2 Routine Sample SOIL/LOW 1.0 41	EAPC3 Routine Sample SOIL/LOW 1.0 50	EAPC4 Routine Sample SOIL/LOW 1.0 43			
GNA								
Phenol	400 U	480 U	560 U	660 U	580 U			
bis(2-Chloroethyl) ether	400 U	480 U	560 U	660 U	580 U			
2-Chlorophenol	400 U	480 U	560 U	660 U	580 U			
1,3-Dichlorobenzene	400 U	480 U	560 U	660 U	580 U			
1,4-Dichlorobenzene	400 U	480 U	560 U	660 U	580 U			
1,2-Dichlorobenzene	400 U	480 U	560 U	660 U	580 U			
2-Methylphenol	400 U	480 U	560 U	660 U	580 U			
2,2'-oxybis(1-Chloropropane)	400 U	480 U	560 U	660 U	580 U			
4-Methylphenol	400 U	480 U	120 J	49 J	140 J			
N-Nitroso-di-n-propylamine	400 U	480 U	560 U	660 U	580 U			
Hexachloroethane	400 U	480 U	560 U	660 U	580 U			
Nitrobenzene	400 U	480 U	560 U	660 U	580 U			
Isophorone	400 U	480 U	560 U	660 U	580 U			
2-Nitrophenol	400 U	480 U	560 U	660 U	580 U			
2,4-Dimethylphenol	400 U	480 U	560 U	660 U	580 U			
bis(2-Chloroethoxy) methane	400 U	480 U	560 U	660 U	580 U			
2,4-Dichlorophenol	400 U	480 U	560 U	660 U	580 U			
1,2,4-Trichlorobenzene	400 U	480 U	560 U	660 U	580 U			
Naphthalene	400 U	480 U	560 U	660 U	580 U			
4-Chloroaniline	400 U	480 U	560 U	660 U	580 U			
Hexachlorobutadiene	400 U	480 U	560 U	660 U	580 U			
4-Chloro-3-methylphenol	400 U	480 U	560 U	660 U	580 U			
2-Methylnaphthalene	400 U	480 U	560 U	660 U	580 U			
Hexachlorocyclopentadiene	400 UJ	480 UJ	560 UJ	660 UJ	580 UJ			
2,4,6-Trichlorophenol	400 U	480 U	560 U	660 U	580 U			
2,4,5-Trichlorophenol	960 U	1200 U	1400 U	1600 U	1400 U			
2-Chloronaphthalene	400 U	480 U	560 U	660 U	580 U			
2-Nitroaniline	960 U	1200 U	1400 U	1600 U	1400 U			
Dimethylphthalate	400 U	480 U	560 U	660 U	580 U			
Acenaphthylene	400 U	480 U	560 U	660 U	580 U			
2,6-Dinitrotoluene	400 U	480 U	560 U	660 U	580 U			
3-Nitroaniline	960 U	1200 U	1400 U	1600 U	1400 U			
Acenaphthene	400 U	480 U	560 U	660 U	580 U			
2,4-Dinitrophenol	960 U	1200 U	1400 U	1600 U	1400 U			
4-Nitrophenol	960 U	1200 U	1400 U	1600 U	1400 U			
Dibenzofuran	400 U	480 U	560 U	660 U	580 U			
2,4-Dinitrotoluene	400 U	480 U	560 U	660 U	580 U			

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET							SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOMA	
CASE NO: 23669 SDG NO: EADB9	EABE3	EAPC1	EAPC2	EAPC3	EAPC4			
EPA SAMPLE NUMBER:								
REGIONAL SAMPLE NUMBER:								
SAMPLE LOCATION:								
SAMPLE TYPE:	Routine Sample							
MATRIX/ANALYSIS:	SOIL/LOW	SOIL/LOW	SOIL/LOW	SOIL/LOW	SOIL/LOW			
DILUTION FACTOR:	1.0	1.0	1.0	1.0	1.0			
PERCENT MOISTURE:	17	32	41	50	43			
BNA								
Diethylphthalate	400	U	480	U	560	U	660	U
4-Chlorophenyl-phenyl ether	400	U	480	U	560	U	660	U
Fluorene	400	U	480	U	560	U	660	U
4-Nitroaniline	960	U	1200	U	1400	U	1600	U
4,6-Dinitro-2-methylphenol	960	U	1200	U	1400	U	1600	U
N-nitrosodiphenylamine	400	U	480	U	560	U	660	U
4-Bromophenyl-phenylether	400	U	480	U	560	U	660	U
Hexachlorobenzene	400	U	480	U	560	U	660	U
Pentachlorophenol	960	U	1200	U	1400	U	1600	U
Phenanthrene	400	U	41	J	85	J	33	J
Anthracene	400	U	480	U	560	U	660	U
Carbazole	400	U	480	U	560	U	660	U
Di-n-butylphthalate	29	J	480	U	560	U	51	J
Fluoranthene	400	U	70	J	130	J	70	J
Pyrene	400	U	56	J	120	J	59	J
Butylbenzylphthalate	400	U	480	U	38	J	660	U
3,3'-Dichlorobenzidine	400	U	480	U	560	U	660	U
Benzo(a)anthracene	400	U	42	J	52	J	660	U
Chrysene	400	U	41	J	68	J	50	J
bis(2-Ethylhexyl)phthalate	400	U	480	U	560	U	660	U
Di-n-octylphthalate	400	U	480	U	560	U	660	U
Benzo(b)fluoranthene	400	U	30	J	61	J	43	J
Benzo(k)fluoranthene	400	U	27	J	43	J	660	U
Benzo(a)pyrene	400	U	33	J	51	J	37	J
Indeno(1,2,3-cd)pyrene	400	U	480	U	46	J	39	J
Dibenz(a,h)anthracene	400	U	480	U	560	U	660	U
Benzo(g,h,i)perylene	400	U	480	U	44	J	44	J
								3000

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET						
CASE NO: 23669	EAPC5	EAPC6	EAPC7	SBLK1	SBLK2	SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOMA
EPA SAMPLE NUMBER:						
REGIONAL SAMPLE NUMBER:						
SAMPLE LOCATION:						
SAMPLE TYPE:	Routine Sample	Routine Sample	Routine Sample	Method Blank	Method Blank	
MATRIX/ANALYSIS:	SOIL/LOW	SOIL/LOW	WATER/LOW	SOIL/LOW	WATER/LOW	
DIILUTION FACTOR:	1.0	1.0	1.0	1.0	1.0	
PERCENT MOISTURE:	36	35		0		
<u>9NA</u>						
Phenol	520	U	510	U	10	U
bis(2-Chloroethyl) ether	520	U	510	U	10	U
2-Chlorophenol	520	U	510	U	10	U
1,3-Dichlorobenzene	520	U	510	U	10	U
1,4-Dichlorobenzene	520	U	510	U	10	U
1,2-Dichlorobenzene	520	U	510	U	10	U
2-Methylphenol	520	U	510	U	10	U
2,2'-oxybis(1-Chloropropane)	520	U	510	U	10	U
4-Methylphenol	520	U	510	U	10	U
N-Nitroso-di-n-propylamine	520	U	510	U	10	U
Hexachloroethane	520	U	510	U	10	U
Nitrobenzene	520	U	510	U	10	U
Isophorone	520	U	510	U	10	U
2-Nitrophenol	520	U	510	U	10	U
2,4-Dimethylphenol	520	U	510	U	10	U
bis(2-Chloroethoxy) methane	520	U	510	U	10	U
2,4-Dichlorophenol	520	U	510	U	10	U
1,2,4-Trichlorobenzene	520	U	510	U	10	U
Naphthalene	520	U	510	U	10	U
4-Chloroaniline	520	U	510	U	10	U
Hexachlorobutadiene	520	U	510	U	10	U
4-Chloro-3-methylphenol	520	U	510	U	10	U
2-Methylnaphthalene	520	U	510	U	10	U
Hexachlorocyclopentadiene	520	U	510	U	10	U
2,4,6-Trichlorophenol	520	U	510	U	10	U
2,4,5-Trichlorophenol	1200	U	1200	U	25	U
2-Chloronaphthalene	520	U	510	U	10	U
2-Nitroaniline	1200	U	1200	U	25	U
Dimethylphthalate	520	U	510	U	10	U
Acenaphthylene	520	U	510	U	10	U
2,6-Dinitrotoluene	520	U	510	U	10	U
3-Nitroaniline	1200	U	1200	U	25	U
Acenaphthene	520	U	510	U	10	U
2,4-Dinitrophenol	1200	U	1200	U	25	U
4-Nitrophenol	1200	U	1200	U	25	U
Dibenzofuran	520	U	510	U	10	U
2,4-Dinitrotoluene	520	U	510	U	10	U

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

**LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)**

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CASE NO: 23669 SDG NO: EADB9		TCL QUALIFIED SPREADSHEET				SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOMA	
EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EAPC5 Routine Sample SOIL/LOW 1.0 36	EAPC6 Routine Sample SOIL/LOW 1.0 35	EAPC7 Routine Sample WATER/LOW 1.0	SBLK1 Method Blank SOIL/LOW 1.0 0	SBLK2 Method Blank WATER/LOW 1.0		
BNA							
Methylphthalate	520 U	510 U	10 U	23 J	0.8 J		
4-Chlorophenyl-phenyl ether	520 U	510 U	10 U	330 U	10 U		
Fluorene	520 U	510 U	10 U	330 U	10 U		
4-Nitroaniline	1200 U	1200 U	25 U	800 U	25 U		
4,6-Dinitro-2-methylphenol	1200 U	1200 U	25 U	800 U	25 U		
N-nitrosodiphenylamine	520 U	510 U	10 U	330 U	10 U		
4-Bromophenyl-phenylether	520 U	510 U	10 U	330 U	10 U		
Hexachlorobenzene	520 U	510 U	10 U	330 U	10 U		
Pentachlorophenol	1200 U	1200 U	25 U	800 U	25 U		
Phenanthrene	520 U	510 U	10 U	330 U	10 U		
Inthracene	520 U	510 U	10 U	330 U	10 U		
Carbazole	520 U	510 U	10 U	330 U	10 U		
Di-n-butylphthalate	32 J	33 J	10 U	330 U	1 J		
Fluoranthene	37 J	34 J	10 U	330 U	10 U		
Pyrene	38 J	34 J	10 U	330 U	10 U		
Butylbenzylphthalate	520 U	510 U	10 U	330 U	10 U		
3,3'-Dichlorobenzidine	520 U	510 U	10 U	330 U	10 U		
Benzo(a)anthracene	520 U	510 U	10 U	330 U	10 U		
Chrysene	35 J	27 J	10 U	330 U	10 U		
bis(2-Ethylhexyl)phthalate	520 U	510 U	10 U	51 J	0.6 J		
Di-n-octylphthalate	520 U	510 U	10 U	330 U	10 U		
Benzo(b)fluoranthene	30 J	26 J	10 U	330 U	10 U		
Benzo(k)fluoranthene	520 U	510 U	10 U	330 U	10 U		
Benzo(a)pyrene	520 U	510 U	10 U	330 U	10 U		
Indeno(1,2,3-cd)pyrene	520 U	26 J	10 U	330 U	10 U		
Dibenz(a,h)anthracene	520 U	510 U	10 U	330 U	10 U		
Benzo(g,h,i)perylene	38 J	510 U	10 U	330 U	10 U		

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET

CASE NO: 23669 SDG NO: EADB9	SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOM				
EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EADB9 Routine Sample SOIL/ 1.0 39	EABE1 Routine Sample SOIL/ 1.0 33	EABE2 Routine Sample SOIL/ 1.0 38	EABE2MS Matrix Spike SOIL/ 1.0 38	EABE2MSD Matrix Spike Du SOIL/ 1.0 38
oES					
alpha-BHC	2.8 U	2.5 U	2.7 U	2.7 U	2.7 U
beta-BHC	2.8 U	2.5 U	2.7 U	2.7 U	2.7 U
delta-BHC	2.8 U	2.5 U	2.7 U	2.7 U	2.7 U
gamma-BHC (Lindane)	2.8 U	2.5 U	2.7 U	18	17
Heptachlor	2.8 U	2.5 U	2.7 U	21	19
Aldrin	2.8 U	2.5 U	2.7 U	19	17
Heptachlor epoxide	2.8 U	2.5 U	2.7 U	2.7 U	2.7 U
Endosulfan I	2.8 U	2.5 U	2.7 U	2.7 U	2.7 U
Dieldrin	5.4 U	4.9 U	5.3 U	46	44
4,4'-DDE	5.4 U	4.9 U	5.3 U	5.3 U	5.3 U
Endrin	5.4 U	4.9 U	5.3 U	48	47
Endosulfan II	5.4 U	4.9 U	5.3 U	5.3 U	5.3 U
4,4'-DDD	5.4 U	4.9 U	5.3 U	5.3 U	5.3 U
Endosulfan sulfate	5.4 U	4.9 U	5.3 U	5.3 U	5.3 U
4,4'-DDT	5.4 U	4.9 U	5.3 U	52	50
Methoxychlor	28 U	25 U	27 U	27 U	27 U
Endrin ketone	5.4 U	4.9 U	5.3 U	5.3 U	5.3 U
Endrin aldehyde	5.4 U	4.9 U	5.3 U	5.3 U	5.3 U
alpha-Chlordane	2.8 U	2.5 U	2.7 U	2.7 U	2.7 U
gamma-Chlordane	2.8 U	2.5 U	2.7 U	2.7 U	2.7 U
Toxaphene	280 U	250 U	270 U	270 U	270 U
Aroclor-1016	54 U	49 U	53 U	53 U	53 U
Aroclor-1221	110 U	100 U	110 U	110 U	110 U
Aroclor-1232	54 U	49 U	53 U	53 U	53 U
Aroclor-1242	54 U	49 U	53 U	53 U	53 U
Aroclor-1248	54 U	49 U	53 U	53 U	53 U
Aroclor-1254	54 U	49 U	53 U	53 U	53 U
Aroclor-1260	54 U	49 U	53 U	53 U	53 U

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET						
CASE NO: 23669	SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOMA					
SDG NO: EADB9	EABE3	EAPC1	EAPC2	EAPC3	EAPC4	
EPA SAMPLE NUMBER:						
REGIONAL SAMPLE NUMBER:						
SAMPLE LOCATION:						
SAMPLE TYPE:	Routine Sample	Routine Sample	Routine Sample	Routine Sample	Routine Sample	
MATRIX/ANALYSIS:	SOIL/ 1.0 17	SOIL/ 1.0 32	SOIL/ 1.0 41	SOIL/ 1.0 50	SOIL/ 1.0 43	
DILUTION FACTOR:						
PERCENT MOISTURE:						
'PES'						
alpha-BHC	2.0	U	2.5	U	2.9	U
beta-BHC	2.0	U	2.5	U	2.9	U
delta-BHC	2.0	U	2.5	U	2.9	U
gamma-BHC (Lindane)	2.0	U	2.5	U	2.9	U
Heptachlor	2.0	U	2.5	U	2.9	U
Aldrin	2.0	U	2.5	U	2.9	U
Heptachlor epoxide	2.0	U	2.5	U	2.9	U
Endosulfan I	2.0	U	2.5	U	2.9	U
Dieledrin	4.0	U	4.8	U	5.6	U
4,4'-DDE	4.0	U	4.8	U	5.6	U
Endrin	4.0	U	4.8	U	5.6	U
Endosulfan II	4.0	U	4.8	U	5.6	U
4,4'-DDD	4.0	U	4.8	U	5.6	U
Endosulfan sulfate	4.0	U	4.8	U	5.6	U
4,4'-DDT	4.0	U	4.8	U	5.6	U
Methoxychlor	20	U	25	U	29	U
Endrin ketone	4.0	U	4.8	U	5.6	U
Endrin aldehyde	4.0	U	4.8	U	5.6	U
alpha-Chlordane	2.0	U	2.5	U	2.9	U
gamma-Chlordane	2.0	U	2.5	U	2.9	U
Toxaphene	200	U	250	U	290	U
Aroclor-1016	40	U	48	U	56	U
Aroclor-1221	81	U	98	U	110	U
Aroclor-1232	40	U	48	U	56	U
Aroclor-1242	40	U	48	U	56	U
Aroclor-1248	40	U	48	U	56	U
Aroclor-1254	40	U	48	U	56	U
Aroclor-1260	40	U	48	U	56	U

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

CADRE REVIEW 2.1

LABORATORY: SOUTHWEST LAB
CASE: 23669
SDG: EADB9
SITE: Celotex Corp. Dump (IL)

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TCL QUALIFIED SPREADSHEET						SITE: LABORATORY: SOUTHWEST LABS OF OKLAHOMA	
CASE NO: 23669 SDG NO: EADB9	EAPC5	EAPC6	EAPC7	PBLKSH	PBLKMU		
EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	Routine Sample SOIL/ 1.0 36	Routine Sample SOIL/ 1.0 35	Routine Sample WATER/ 1.0	Method Blank SOIL/ 1.0	Method Blank WATER/ 1.0		
oES							
alpha-BHC	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
beta-BHC	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
delta-BHC	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
gamma-BHC (Lindane)	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
Heptachlor	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
Aldrin	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
Heptachlor epoxide	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
Endosulfan I	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
Dieldrin	5.2 U	5.1 U	0.10 U	3.3 U	0.10 U		
4,4'-DDE	5.2 U	5.1 U	0.10 U	3.3 U	0.10 U		
Endrin	5.2 U	5.1 U	0.10 U	3.3 U	0.10 U		
Endosulfan II	5.2 U	5.1 U	0.10 U	3.3 U	0.10 U		
4,4'-DDD	5.2 U	5.1 U	0.10 U	3.3 U	0.10 U		
Endosulfan sulfate	5.2 U	5.1 U	0.10 U	3.3 U	0.10 U		
4,4'-DDT	23	5.1 U	0.10 U	3.3 U	0.10 U		
Methoxychlor	26 U	26 U	0.50 U	17 U	0.50 U		
Endrin ketone	5.2 U	5.1 U	0.10 U	3.3 U	0.10 U		
Endrin aldehyde	5.2 U	5.1 U	0.10 U	3.3 U	0.10 U		
alpha-Chlordane	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
gamma-Chlordane	2.7 U	2.6 U	0.05 U	1.7 U	0.05 U		
Toxaphene	260 U	260 U	5.0 U	170 U	5.0 U		
Aroclor-1016	52 U	51 U	1.0 U	33 U	1.0 U		
Aroclor-1221	100 U	100 U	2.0 U	67 U	2.0 U		
Aroclor-1232	52 U	51 U	1.0 U	33 U	1.0 U		
Aroclor-1242	52 U	51 U	1.0 U	33 U	1.0 U		
Aroclor-1248	52 U	51 U	1.0 U	33 U	1.0 U		
Aroclor-1254	52 U	51 U	1.0 U	33 U	1.0 U		
Aroclor-1260	52 U	51 U	1.0 U	33 U	1.0 U		

FILENAME: EADB9.SDG DATE: 06/30/95 TIME: 09:19 CADRE 2.10

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

Reviewed by: Steffanie N. Tobin Lockheed/ESAT
Date: June 30th, 1995

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: 1LD981961634
Case No: 23669 Site Name Location: Celotex Corp Dump
Contractor or EPA Lab: SWOK Data User: IEPA
No. of Samples: 12 Date Sampled or Data Received: 6-27-95

Have Chain-of-Custody records been received? Yes No
Have traffic reports or packing lists been received? Yes No
If no, are traffic report or packing list numbers written on the chain-of-custody record? Yes No
If no, which traffic report or packing list numbers are missing? _____

Are basic data forms in? Yes No
No of samples claimed: 12 No. of samples received: 12
Received by: Lynette Burnett Date: 6-27-95
Received by LSSS: Allison C Harvey Date: 6-28-95
Review started: 6-28-95 Reviewer Signature: Jeffy Clark
Total time spent on review: 15.5 Date review completed: 6-30-95
Copied by: Patricia J Dutt Date: 07/10/95
Mailed to user by: _____ Date: _____

DATA USER:

Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete Suitable for Intended Purpose if OK
Organic Data Complete Suitable for Intended Purpose if OK
Dioxin Data Complete Suitable for Intended Purpose if OK
SAS Data Complete Suitable for Intended Purpose if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Data: _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on

June 27, 1995

FROM: Dennis Wesolowski, Chief (SQC-14J)
Contract Analytical Services Section

TO: Data User: EPA *Patricia just for*
D Wesolowski

6/7/95

We have reviewed the data for the following case:

SITE NAME: Celotex Corp Dump (1)

CASE NUMBER: 23669 SDG NUMBER: EABD 9

Number and Type of Samples: 12 (Soil/water)

Sample Numbers: EABD 9, EABE 1-3, EAPC 1-8

Laboratory: SWOK Hrs. for Review: 20.0

Following are our findings:

The data are acceptable and usable with the qualifications described in the attached narrative.

Patricia J Scott

cc: Regional TPO

NARRATIVE

LABORATORY: SWOK **CASE:** 23669
SITE: Celotex Corp Dump **SDG:** EABD9

Ten (10) soil samples numbered EABE1-3, EAPC1-6, EABD9 and two (2) water samples numbered EAPC7 and EAPC8 were collected June 15, 1995. SWOK of Broken Arrow, OK received the samples on June 16, 1995 in good condition. All of the soil samples and water sample EAPC7 were analyzed for the full list of organic analytes and the water sample EAPC8 was analyzed for VOA only per CLP SOW OLM03.1.

Sample EABE2 was used as the low level spike for all fractions of the soil samples. Sample EAPC7 was identified as a field blank and sample EAPC8 was identified as a trip blank.

VOA samples were analyzed within the fourteen (14) days holding time for soil samples and preserved water samples; therefore, the results are acceptable.

All SVOA and pesticide extractions for the soil samples were completed within the fourteen (14) days holding time and all SVOA and pesticide extractions for the water samples were completed within the seven (7) days holding time; the extracts were analyzed within 40 days; therefore, the results are acceptable.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
Date: June 30, 1995

NARRATIVE

LABORATORY: SWOK **CASE:** 23669
SITE: Celotex Corp Dump **SDG:** EABD9

Below is a summary of the out-of-control audits and the possible effect on the data for this case.

1. HOLDING TIME.

Ten (10) soil samples numbered EABE1-3, EAPC1-6, EABD9 and two (2) water samples numbered EAPC7 and EAPC8 were collected June 15, 1995. SWOK of Broken Arrow, OK received the samples on June 16, 1995 in good condition. All of the soil samples and water sample EAPC7 were analyzed for the full list of organic analytes and the water sample EAPC8 was analyzed for VOA only per CLP SOW OLM03.1.

VOA samples were analyzed within the fourteen (14) day holding time for soil samples and preserved water samples; therefore, the results are acceptable.

All SVOA and pesticide extractions for the soil samples were completed within the fourteen (14) days holding time and all SVOA and pesticide extractions for the water samples were completed within the seven (7) days holding time; the extracts were analyzed within 40 days; therefore, the results are acceptable.

Initial and continuing calibration of VOA, SVOA and pest/PCB standards were evaluated for the Target Compounds List (TCLs) and outliers were recorded on the outlier forms included as a part of this narrative.

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
Date: June 30, 1995

NARRATIVE

LABORATORY: SWOK
 SITE: Celotex Corp Dump

CASE: 23669
 SDG: EABD9

4. METHOD BLANK.

VBLK1 and 2 are the low level soil VOA method blanks. VBLK3 is the low level water VOA method blank. All of the blanks were free of any target compounds or TICs; therefore, the results are acceptable.

SBLK1 is the low level soil SVOA method blank and SBLK2 is the low level water SVOA method blank. SBLK1 reported Diethylphthalate, bis(2 Ethylhexyl)phthalate common laboratory contaminants and 4 TICs. The presence of Diethylphthalate and bis(2 Ethylhexyl)phthalate in any of the samples associated with blank SBLK1 should be qualified as non-detected (U) when the concentration is less than (<) ten (10) times the blank results. The presence of any of the TICs in any of the samples associated with SBLK1 should be qualified as non-detected (U) when the concentration is less than (<) five (5) times the blank results. SBLK2 reported Diethylphthalate, Di-n-butylphthalate and bis(2 Ethylhexyl)phthalate common laboratory contaminants. The presence of Diethylphthalate, Di-n-butylphthalate and bis(2 Ethylhexyl)phthalate in any of the samples associated with blank SBLK2 should be qualified as non-detected (U) when the concentration is less than (<) ten (10) times the blank results. Please refer to the SVOA method blank summary (FORM IV SV) for a list of samples associated with each blank.

PBLKSH is the low level pesticide soil blank and PBLKSH is the low level water SVOA method blank. Both blanks are free of target compounds; therefore, the results are acceptable. The pesticide method blank summary (FORM IV PEST) lists the samples associated with each blank.

5. SYSTEM MONITORING COMPOUND (SMC) AND SURROGATE RECOVERY.

The surrogate recoveries (System Monitoring Compounds) for the VOA fraction for both water and soil were all within the required QC limits except EAPC5 and EAPC6; therefore, the results are acceptable. Samples EAPC5 and EAPC6 reported SM1(TOL)=Toluene-d18 above the QC limits; therefore; positive results for these samples should be qualified as estimated (J) and non detects need no qualification.

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
 Date: June 30, 1995

NARRATIVE

LABORATORY:	SWOK	CASE:	23669
SITE:	Celotex Corp Dump	SDG:	EABD9

The surrogate recoveries for the SVOA fraction for the soil samples were all within the required QC limits; therefore, the results are acceptable.

The surrogate recoveries for the pest/PCB fraction for the soil and water samples were within the required QC limits except EAPC4 and EAPC6; therefore, the results are acceptable. Sample EAPC4 reported DCB=Decachlorobiphenyl above the QC limits on both columns. Sample EAPC6 reported DCB above the QC limits on the DB-1701 column. Positive results for these samples should be qualified as estimated (J) and non detects need no qualification.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE.

Sample EABE2 was used as the low level spike for all fractions of the soil samples.

For the VOA fractions the MS % recoveries, MSD % recoveries and RPDs were all within the QC limits; therefore, the results are acceptable.

For the SVOA fraction the MS % recoveries, MSD % recoveries and RPDs were all within the QC limits; therefore, the results are acceptable.

For the pesticide fraction the MS % recoveries, MSD % recoveries and RPDs were all within the QC limits; therefore, the results are acceptable.

7. FIELD BLANK AND FIELD DUPLICATE.

Sample EAPC7 was identified as a field blank. Sample EAPC8 was identified as a VOA trip blank.

For the VOA fraction samples EAPC7 and 8 reported Methylene Chloride and Acetone.

For the SVOA fraction sample EAPC7 reported 1 TIC.

For the pest/PCB fraction sample EAPC7 was free of any target compounds.

Reviewed by: Jeffrey A. Clark Lockheed/ESAT
Date: June 30, 1995

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 07-14-97

SUBJECT: Review of Region V CLP Data
Received for Review on June 30, 1995

FROM: Dennis Wesolowski, Chief (SQC-14J)
Contract Analytical Services Section L. Finkelberg
TO: Data User: IEPA for D. Wesolowski

We have reviewed the data for the following case:

SITE NAME: Celotex Corp Dump (IL)

CASE NUMBER: 23669 SDG NUMBER: MEADL1

Number and Type of Samples: 11 (Soil/Water)

Sample Numbers: MEADL1-4, 7, MEZP87-92

Laboratory: IEA Hrs. for Review: 11.5
+1.1 T.M.

Following are our findings:

The soil matrix spike recovery for Sb is out of control.
The water preparation blank and CCB's contain contamination.
All data are usable with the qualifications described in the narrative.

L. Finkelberg
07-14-95

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JUL 24 1995

IEPA/DLPC

cc: Regional TPO

NARRATIVE

SITE: CELOTEX CORP. DUMP
LABORATORY: IEA

CASE: 23669
SDG: MEADL1

The laboratory's portion of case 23669 contains 1 low level water and 10 low level soil samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

EVIDENTIAL AUDIT: All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. Some of the original ICP raw data (pp. 63-165) are with case 23650, SDG: MEABH1. The original sample tags, Federal Express airbills, chain of custody forms and Form DC-1 are present. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

SOIL SAMPLES [MEADL1-4 and MEZP87-92]

ICP ANALYSES: The soil matrix spike recovery for Sb (54.9%) is out of control. All the soil Sb data are estimated (UJ) due to possible elevation of the detection limit.

OTHER ANALYSES: All soil Hg and CN data are acceptable.

Samples MEZP91/92 are field duplicates that show good correlation.

WATER SAMPLE [MEADL7]

ICP ANALYSES: Sample MEADL7 is a field blank, and is the only sample with a water matrix in this SDG. According to the ILM03.0 SOW, there are to be no matrix spike, duplicate and serial dilution audits on field blanks. The laboratory did not analyze any matrix spike, duplicate and serial dilution audits on the water sample. The water data are not qualified on this basis.

The water preparation blank contains As (4.193 µg/L), Ca (72.661 µg/L), Ni (2.393 µg/L), Tl (7.340 µg/L) and Zn (1.251 µg/L). The CCBs contains Mg (12.3 µg/L) and K (32.5 µg/L). The As, Ca, Mg, Ni, K, Tl and Zn data on sample MEADL7 are estimated (J) due to contamination.

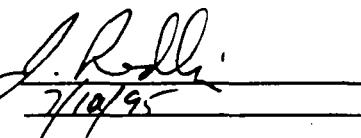
Reviewed by: J. Redlin James Redlin, Lockheed Martin/ESAT
Date: 7/10/95

OTHER ANALYSES: All water Hg and CN data are acceptable.

Sample MEADL7 is a water rinsate field blank, and is the only sample with a water matrix. As a rinsate for soil samples, the field blank data does not affect any soil sample results, and does not qualify any soil data.

Reviewed by:

Date:



James Redlin, Lockheed Martin/ESAT

ESAT-5-041.1

DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utilized in this document, the following code letters and associated definitions are provided:

- U** Indicates the material was analyzed, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- J** Indicates the associated value is an estimated quantity.
- R** Indicates the data are unusable. (Note: The analyte may or may not be present.)
- UJ** Indicates the material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
- E** Indicates the reported value is estimated because of the presence of interferences. An explanatory note shall be included under Comments on the Cover Page (if the problem applies to all samples) or on the specific FORM I-IN (if it is an isolated problem).
- M** Indicates duplicate injection precision is not met.
- N** Indicates the spike sample recovery is not within control limits.
- S** Indicates the reported value was determined by the Method of Standard Addition (MSA).
- W** Indicates the post-digestion spike for furnace AA analysis is out of control limits (85%-115%), while sample absorbance is less than 50% of the spike absorbance.
- +** Indicates the correlation coefficient for the MSA is less than 0.995.
- *** Indicates the duplicate analysis is not within control limits.

Note: Entering "S", "W" or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

b Name: INDUSTRIAL_AND_ENVIRONMEN Contract: 68-D3-0041
ab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1
OW No.: ILM03.0

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JUN 30 1995

US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Were ICP interelement corrections applied ? Yes/No YES

Yes/No YES

Were ICP background corrections applied? Yes/No YES

Yes/No YES

If yes - were raw data generated before application of background corrections ?

Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Donald C. Stogner Name: Donald C. Stogner
Date: 6-26-95 Title: Manager, Inorganics

COVER PAGE - IN

ILM03.0

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEADL1

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Lab Sample ID: 950631901

Level (low/med): LOW Date Received: 06/16/95

Solids: 64.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11500	-		P
7440-36-0	Antimony	0.56	U	N	P
7440-38-2	Arsenic	6.6	-		P
7440-39-3	Barium	193	-		P
7440-41-7	Beryllium	0.68	B		P
7440-43-9	Cadmium	0.55	B		P
7440-70-2	Calcium	10900	-		P
7440-47-3	Chromium	16.4	-		P
7440-48-4	Cobalt	9.0	B		P
7440-50-8	Copper	19.3	-		P
7439-89-6	Iron	14300	-		P
7439-92-1	Lead	16.7	-		P
7439-95-4	Magnesium	5490	-		P
7439-96-5	Manganese	192	-		P
7439-97-6	Mercury	0.15	U		CV
7440-02-0	Nickel	29.3	-		P
7440-09-7	Potassium	2300	-		P
7782-49-2	Selenium	0.83	U		P
7440-22-4	Silver	0.28	U		P
7440-23-5	Sodium	120	B		P
7440-28-0	Thallium	0.83	U		P
7440-62-2	Vanadium	20.1	-		P
7440-66-6	Zinc	88.1	-		P
	Cyanide	0.54	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEADL2

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Lab Sample ID: 950631902

Level (low/med): LOW Date Received: 06/16/95

Solids: 71.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10500	-		P
7440-36-0	Antimony	0.42	U	N	P
7440-38-2	Arsenic	5.8	-		P
7440-39-3	Barium	100	-		P
7440-41-7	Beryllium	0.63	B		P
7440-43-9	Cadmium	0.70	B		P
7440-70-2	Calcium	43400	-		P
7440-47-3	Chromium	14.9	-		P
7440-48-4	Cobalt	9.1	B		P
7440-50-8	Copper	12.0	-		P
7439-89-6	Iron	21100	-		P
7439-92-1	Lead	10.6	-		P
7439-95-4	Magnesium	15200	-		P
7439-96-5	Manganese	1310	-		P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	18.3	-		P
7440-09-7	Potassium	2110	-		P
7782-49-2	Selenium	0.63	U		P
7440-22-4	Silver	0.21	U		P
7440-23-5	Sodium	70.5	B		P
7440-28-0	Thallium	0.63	U		P
7440-62-2	Vanadium	20.1	-		P
7440-66-6	Zinc	65.4	-		P
	Cyanide	0.52	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEADL3

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Lab Sample ID: 950631903

Level (low/med): LOW Date Received: 06/16/95

Solids: 69.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5760	-		P
7440-36-0	Antimony	0.45	U	N	P
7440-38-2	Arsenic	4.3	-		P
7440-39-3	Barium	54.6			P
7440-41-7	Beryllium	0.40	B		P
7440-43-9	Cadmium	0.39	B		P
7440-70-2	Calcium	15700			P
7440-47-3	Chromium	8.4	-		P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	11.2	-		P
7439-89-6	Iron	8500			P
7439-92-1	Lead	17.6	-		P
7439-95-4	Magnesium	6020	-		P
7439-96-5	Manganese	93.9			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	10.3			P
7440-09-7	Potassium	1040	B		P
7782-49-2	Selenium	0.67	U		P
7440-22-4	Silver	0.22	U		P
7440-23-5	Sodium	51.6	U		P
7440-28-0	Thallium	0.67	U		P
7440-62-2	Vanadium	13.4	-		P
7440-66-6	Zinc	50.3			P
	Cyanide	0.51	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEADL4

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Lab Sample ID: 950631904

Level (low/med): LOW Date Received: 06/16/95

Solids: 67.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6400			P
7440-36-0	Antimony	0.44	U	N	P
7440-38-2	Arsenic	2.6			P
7440-39-3	Barium	39.3	B		P
7440-41-7	Beryllium	0.40	B		P
7440-43-9	Cadmium	0.31	B		P
7440-70-2	Calcium	17600			P
7440-47-3	Chromium	8.7			P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	10.7			P
7439-89-6	Iron	7180			P
7439-92-1	Lead	14.7			P
7439-95-4	Magnesium	6010			P
7439-96-5	Manganese	81.3			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	7.8	B		P
7440-09-7	Potassium	1210			P
7782-49-2	Selenium	0.66	U		P
7440-22-4	Silver	0.22	U		P
7440-23-5	Sodium	50.8	U		P
7440-28-0	Thallium	0.66	U		P
7440-62-2	Vanadium	11.1			P
7440-66-6	Zinc	40.7			P
	Cyanide	0.65	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEADL7

ab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: 68-D3-0041

ab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

atrix (soil/water): WATER Lab Sample ID: 950631905

evel (low/med): LOW Date Received: 06/16/95

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	38.6	B		P
7440-36-0	Antimony	2.0	U		P
7440-38-2	Arsenic	4.0	B		P
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	234	B		P
7440-47-3	Chromium	1.0	U		P
7440-48-4	Cobalt	1.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.0	U		P
7439-95-4	Magnesium	11.5	B		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.5	B		P
7440-09-7	Potassium	33.8	B		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	231	U		P
7440-28-0	Thallium	6.4	B		P
7440-62-2	Vanadium	1.0	U		P
7440-66-6	Zinc	5.8	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEZP87

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Lab Sample ID: 950631906

Level (low/med): LOW Date Received: 06/16/95

Solids: 75.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4130			P
7440-36-0	Antimony	0.35	U	N	P
7440-38-2	Arsenic	3.9			P
7440-39-3	Barium	27.3	B		P
7440-41-7	Beryllium	0.32	B		P
7440-43-9	Cadmium	0.20	B		P
7440-70-2	Calcium	19400			P
7440-47-3	Chromium	6.6			P
7440-48-4	Cobalt	3.1	B		P
7440-50-8	Copper	5.2			P
7439-89-6	Iron	8740			P
7439-92-1	Lead	12.3			P
7439-95-4	Magnesium	10300			P
7439-96-5	Manganese	73.2			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	7.0	B		P
7440-09-7	Potassium	758	B		P
7782-49-2	Selenium	0.53	U		P
7440-22-4	Silver	0.18	U		P
7440-23-5	Sodium	40.8	U		P
7440-28-0	Thallium	0.53	U		P
7440-62-2	Vanadium	10			P
7440-66-6	Zinc	31.5			P
	Cyanide	0.49	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEZP88

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Lab Sample ID: 950631907

Level (low/med): LOW Date Received: 06/16/95

Solids: 49.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7650	-	-	P
7440-36-0	Antimony	0.68	U	N	P
7440-38-2	Arsenic	7.5	-	-	P
7440-39-3	Barium	67.6	B	-	P
7440-41-7	Beryllium	0.52	B	-	P
7440-43-9	Cadmium	0.49	B	-	P
7440-70-2	Calcium	27700	-	-	P
7440-47-3	Chromium	11.9	-	-	P
7440-48-4	Cobalt	6.3	B	-	P
7440-50-8	Copper	17.4	-	-	P
7439-89-6	Iron	15300	-	-	P
7439-92-1	Lead	17.8	-	-	P
7439-95-4	Magnesium	9450	-	-	P
7439-96-5	Manganese	597	-	-	P
7439-97-6	Mercury	0.18	U	-	CV
7440-02-0	Nickel	14.6	-	-	P
7440-09-7	Potassium	1500	B	-	P
7782-49-2	Selenium	1.0	U	-	P
7440-22-4	Silver	0.34	U	-	P
7440-23-5	Sodium	78.1	U	-	P
7440-28-0	Thallium	1.1	B	-	P
7440-62-2	Vanadium	15.4	B	-	P
7440-66-6	Zinc	66.9	-	-	P
	Cyanide	0.85	U	-	CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEZP89

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Lab Sample ID: 950631908

Level (low/med): LOW Date Received: 06/16/95

Solids: 46.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14700	-		P
7440-36-0	Antimony	0.61	U	N	P
7440-38-2	Arsenic	6.5	-		P
7440-39-3	Barium	110	-		P
7440-41-7	Beryllium	0.89	B		P
7440-43-9	Cadmium	0.72	B		P
7440-70-2	Calcium	15400	-		P
7440-47-3	Chromium	21.7	-		P
7440-48-4	Cobalt	7.9	B		P
7440-50-8	Copper	27.7	-		P
7439-89-6	Iron	20800	-		P
7439-92-1	Lead	25.4	-		P
7439-95-4	Magnesium	8450	-		P
7439-96-5	Manganese	157	-		P
7439-97-6	Mercury	0.19	U		CV
7440-02-0	Nickel	24.0	-		P
7440-09-7	Potassium	2200	-		P
7782-49-2	Selenium	0.92	U		P
7440-22-4	Silver	0.31	U		P
7440-23-5	Sodium	145	B		P
7440-28-0	Thallium	0.92	U		P
7440-62-2	Vanadium	27.5	-		P
7440-66-6	Zinc	101	-		P
	Cyanide	0.91	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEZP90

Lab Name: INDUSTRIAL_AND_ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Lab Sample ID: 950631909

Level (low/med): LOW Date Received: 06/16/95

Solids: 68.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8280	-		P
7440-36-0	Antimony	0.55	U	N	P
7440-38-2	Arsenic	6.5	-		P
7440-39-3	Barium	81.7	-		P
7440-41-7	Beryllium	0.56	B		P
7440-43-9	Cadmium	0.46	B		P
7440-70-2	Calcium	13700	-		P
7440-47-3	Chromium	13.3	-		P
7440-48-4	Cobalt	6.3	B		P
7440-50-8	Copper	16.8	-		P
7439-89-6	Iron	14300	-		P
7439-92-1	Lead	21.1	-		P
7439-95-4	Magnesium	8460	-		P
7439-96-5	Manganese	150	-		P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	19.0	-		P
7440-09-7	Potassium	1490	-		P
7782-49-2	Selenium	0.83	U		P
7440-22-4	Silver	0.28	U		P
7440-23-5	Sodium	63.6	U		P
7440-28-0	Thallium	0.83	U		P
7440-62-2	Vanadium	17.2	-		P
7440-66-6	Zinc	69.7	-		P
	Cyanide	0.44	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEZP91

ab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

ab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

atrix (soil/water): SOIL Lab Sample ID: 950631910

evel (low/med): LOW Date Received: 06/16/95

Solids: 63.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15600	-		P
7440-36-0	Antimony	0.55	U	N	P
7440-38-2	Arsenic	8.4	-		P
7440-39-3	Barium	121	-		P
7440-41-7	Beryllium	0.95	B		P
7440-43-9	Cadmium	0.75	B		P
7440-70-2	Calcium	9960	-		P
7440-47-3	Chromium	20.9	-		P
7440-48-4	Cobalt	8.8	B		P
7440-50-8	Copper	19.8	-		P
7439-89-6	Iron	22700	-		P
7439-92-1	Lead	24.9	-		P
7439-95-4	Magnesium	6490	-		P
7439-96-5	Manganese	549	-		P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	23.2	-		P
7440-09-7	Potassium	2130	-		P
7782-49-2	Selenium	0.83	U		P
7440-22-4	Silver	0.28	U		P
7440-23-5	Sodium	64.9	B		P
7440-28-0	Thallium	0.96	B		P
7440-62-2	Vanadium	27.4	-		P
7440-66-6	Zinc	101	-		P
	Cyanide	0.71	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEZP92

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL

Lab Sample ID: 950631911

Level (low/med): LOW

Date Received: 06/16/95

Solids: 62.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14600			P
7440-36-0	Antimony	0.45	U	N	P
7440-38-2	Arsenic	8.3			P
7440-39-3	Barium	111			P
7440-41-7	Beryllium	0.88	B		P
7440-43-9	Cadmium	0.76	B		P
7440-70-2	Calcium	9820			P
7440-47-3	Chromium	19.6			P
7440-48-4	Cobalt	8.3	B		P
7440-50-8	Copper	19.0			P
7439-89-6	Iron	22000			P
7439-92-1	Lead	23.6			P
7439-95-4	Magnesium	6390			P
7439-96-5	Manganese	597			P
7439-97-6	Mercury	0.15	U		CV
7440-02-0	Nickel	21.8			P
7440-09-7	Potassium	2030			P
7782-49-2	Selenium	0.67	U		P
7440-22-4	Silver	0.22	U		P
7440-23-5	Sodium	51.6	U		P
7440-28-0	Thallium	0.74	B		P
7440-62-2	Vanadium	26.5			P
7440-66-6	Zinc	96.0			P
	Cyanide	0.67	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

3
BLANKS

Lab Name: INDUSTRIAL AND ENVIRONMEN

Contract: 68-D3-0041

Lab Code: IEA

Case No.: 23669

SAS No.: _____

SDG No.: MEADL1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration						Prepa- ration Blank	C	M
			1	C	Blank (ug/L)	2	C	3			
Aluminum	24.0	U	24.0	U	24.0	U	24.0	U	24.000	U	P
Antimony	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	4.193	B	P
Barium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Calcium	-10.5	B	5.0	U	5.0	U	5.0	U	72.661	B	P
Chromium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Cobalt	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Copper	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Iron	40.0	U	40.0	U	40.0	U	40.0	U	40.000	U	P
Lead	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Magnesium	4.0	U	6.5	B	8.4	B	11.8	B	4.807	B	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	CV
Nickel	1.0	U	1.0	U	1.0	U	1.0	U	2.393	B	P
Potassium	31.0	U	31.0	U	31.0	U	31.0	U	31.000	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	3.000	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Sodium	-466.8	B	-344.4	B	-511.5	B	-458.9	B	-2074.632	B	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	7.340	B	P
Vanadium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Zinc	1.0	U	1.0	U	1.0	U	1.0	U	1.251	B	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	CA

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3
BLANKS

Lab Name: INDUSTRIAL AND ENVIRONMEN

Contract: 68-D3-0041

Lab Code: IEA

Case No.: 23669

SAS No.: _____

SDG No.: MEADL1

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum			24.0	U	31.1	B			4.800	U	P
Antimony			2.0	U	2.0	U			0.400	U	P
Arsenic			3.0	U	3.0	U			0.600	U	P
Barium			1.0	U	1.0	U			0.200	U	P
Beryllium			1.0	U	1.0	U			0.200	U	P
Cadmium			1.0	U	1.0	U			0.200	U	P
Calcium			-18.8	B	-22.8	B			-4.117	B	P
Chromium			1.0	U	1.0	U			0.200	U	P
Cobalt			1.0	U	1.0	U			0.200	U	P
Copper			1.0	U	1.0	U			0.200	U	P
Iron			40.0	U	40.0	U			8.000	U	P
Lead			2.0	U	2.0	U			0.400	U	P
Magnesium			8.8	B	11.9	B			0.800	U	P
Manganese			1.0	U	1.0	U			0.200	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	CV
Nickel			1.0	U	1.0	U			0.200	U	P
Potassium			31.0	U	31.0	U			6.200	U	P
Selenium			3.0	U	3.0	U			0.600	U	P
Silver			1.0	U	1.0	U			0.200	U	P
Sodium			-523.3	B	-551.6	B			-113.260	B	P
Thallium			3.0	U	3.0	U			0.600	U	P
Vanadium			1.0	U	1.0	U			0.200	U	P
Zinc			1.0	U	1.0	U			0.200	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	0.500	U	CA

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3
BLANKS

Lab Name: INDUSTRIAL AND ENVIRONMEN

Contract: 68-D3-0041

Lab Code: IEA

Case No.: 23669

SAS No.: _____

SDG No.: MEADL1

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Prepa- ration Blank	C	M
			1	C	2	C	3	C			
Aluminum	24.0	U	24.0	U	24.0	U					P
Antimony	2.0	U	2.0	U	2.0	U					P
Arsenic	3.0	U	3.0	U	3.1	B					P
Barium	1.0	U	1.0	U	1.0	U					P
Beryllium	1.0	U	1.0	U	1.0	U					P
Cadmium	1.0	U	1.0	U	1.0	U					P
Calcium	-8.6	B	-8.7	B	-10.1	B					P
Chromium	1.5	B	2.0	B	1.1	B					P
Cobalt	1.0	U	1.0	U	1.0	U					P
Copper	1.0	U	1.0	U	1.0	U					P
Iron	40.0	U	40.0	U	40.0	U					P
Lead	2.0	U	2.0	U	2.0	U					P
Magnesium	5.3	B	9.3	B	12.3	B					P
Manganese	1.0	U	1.0	U	1.0	U					P
Mercury											NR
Nickel	1.0	B	1.3	B	1.0	B					P
Potassium	31.0	U	31.0	U	32.5	B					P
Selenium	3.0	U	3.0	U	3.0	U					P
Silver	1.0	U	1.0	U	1.0	U					P
Sodium	-632.4	B	-782.3	B	-862.7	B					P
Thallium	3.0	U	4.5	B	3.0	U					P
Vanadium	1.0	U	1.0	U	1.0	U					P
Zinc	1.0	U	1.0	U	1.0	U					P
Cyanide											NR

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEADL3S

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Level (low/med): LOW

Solids for Sample: 69.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum								NR	
Antimony	75-125	63.2802	-	0.4468	U	115.27	54.9	N	P
Arsenic	75-125	443.8926	-	4.2640	-	461.10	95.3	P	
Barium	75-125	488.8710	-	54.6107	-	461.10	94.2	P	
Beryllium	75-125	11.1696	-	0.4030	B	11.53	93.4	P	
Cadmium	75-125	11.1391	-	0.3892	B	11.53	93.2	P	
Calcium								NR	
Chromium	75-125	53.0621	-	8.4458	-	46.11	96.8	P	
Cobalt	75-125	110.5761	-	4.0035	B	115.27	92.5	P	
Copper	75-125	67.4518	-	11.2131	-	57.64	97.6	P	
Iron								NR	
Lead	75-125	124.9927	-	17.6286	-	115.27	93.1	P	
Magnesium								NR	
Manganese	75-125	200.0666	-	93.9457	-	115.27	92.1	P	
Mercury	75-125	0.6127	-	0.1201	U	0.58	105.6	CV	
Nickel	75-125	118.8164	-	10.3250	-	115.27	94.1	P	
Potassium								NR	
Selenium	75-125	442.4782	-	0.6702	U	461.10	96.0	P	
Silver	75-125	11.1244	-	0.2234	U	11.53	96.5	P	
Sodium								NR	
Thallium	75-125	437.3201	-	0.6702	U	461.10	94.8	P	
Vanadium	75-125	124.3490	-	13.4363	-	115.27	96.2	P	
Zinc	75-125	162.4911	-	50.3324	-	115.27	97.3	P	
Cyanide	75-125	5.0194	-	0.5146	U	5.34	94.0	CA	

Comments:

U.S. EPA - CLP

5B

EPA SAMPLE NO.

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

MEADL3A

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water) : SOIL

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum									NR
Selenium		132.18	-	2.00	U	120.0	110.2	P	NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEADL3D

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Matrix (soil/water): SOIL Level (low/med): LOW

Solids for Sample: 69.4 % Solids for Duplicate: 67.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		5761.8182	U	5266.2174	U	9.0	P	
Antimony		0.4468	U	0.5437	U		P	
Arsenic	2.2	4.2640	-	3.8078	-	11.3	P	
Barium	44.7	54.6107	-	55.8618	-	2.3	P	
Beryllium		0.4030	B	0.3716	B	8.1	P	
Cadmium		0.3892	B	0.3029	B	24.9	P	
Calcium		15665.8593	-	16704.1102	-	6.4	P	
Chromium	2.2	8.4458	-	8.1627	-	3.4	P	
Cobalt		4.0035	B	3.8706	B	3.4	P	
Copper	5.6	11.2131	-	11.5663	-	3.1	P	
Iron		8497.4765	-	8369.3032	-	1.5	P	
Lead		17.6286	-	16.9974	-	3.6	P	
Magnesium		6020.3530	-	6546.9529	-	8.4	P	
Manganese		93.9457	-	97.0254	-	3.2	P	
Mercury		0.1201	U	0.1201	U		CV	
Nickel	8.9	10.3250	-	10.3222	B	0.0	P	
Potassium		1044.0598	B	929.0990	B	11.7	P	
Selenium		0.6702	U	0.8156	U		P	
Silver		0.2234	U	0.2719	U		P	
Sodium		51.6051	U	62.8025	U		P	
Thallium		0.6702	U	0.8156	U		P	
Vanadium	11.2	13.4363	-	11.8493	B	12.6	P	
Zinc		50.3324	-	47.1511	-	6.5	P	
Cyanide		0.5146	U	0.5417	U		CA	

10
Instrument Detection Limits (Quarterly)

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

ICP ID Number: TJA61T Date: 04/18/95

Flame AA ID Number : _____

Turnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	24.0	P
Antimony	206.84		60	2.0	P
Arsenic	189.04		10	3.0	P
Barium	493.41		200	1.0	P
Beryllium	313.04		5	1.0	P
Cadmium	226.50		5	1.0	P
Calcium	317.93		5000	5.0	P
Chromium	267.72		10	1.0	P
Cobalt	228.62		50	1.0	P
Copper	324.75		25	1.0	P
Iron	271.44		100	40.0	P
Lead	220.35		3	2.0	P
Magnesium	279.08		5000	4.0	P
Manganese	257.61		15	1.0	P
Mercury			0.2		NR
Nickel	231.60		40	1.0	P
Potassium	766.49		5000	31.0	P
Selenium	196.03		5	3.0	P
Silver	328.07		10	1.0	P
Sodium	330.23		5000	231.0	P
Thallium	190.86		10	3.0	P
Vanadium	292.40		50	1.0	P
Zinc	213.86		20	1.0	P

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041
 Lab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1
 CP ID Number: Date: 04/15/95
 Flame AA ID Number : 3200A
 Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.2	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: INDUSTRIAL_AND_ENVIRONMEN

Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669

SAS No.: SDG No.: MEADL1

Instrument ID Number: TJA61T

Method: P

Start Date: 06/20/95

End Date: 06/20/95

EPA Sample No.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C C	C A	C R	C O	F U	P E	M B	M G	M N	H G	N I	K	S E	A G	N A	T L	V Z	C N
S0	1.00	0828		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	
	1.00	0835		X	-	X	X	X	X	-	-	X	X	X	X	X	X	X	-	X	-	X	X	X	X	X	
S	1.00	0844		X	-	X	X	-	-	-	-	X	X	X	X	X	X	X	-	X	-	X	X	-	X	X	
S	1.00	0850		-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S	1.00	0855		-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S	1.00	0900		-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S	1.00	0907		X	-	-	-	-	-	X	-	-	-	X	-	X	-	X	-	-	-	-	-	-	-	-	
S	1.00	0918		X	-	-	-	-	-	X	-	-	-	X	-	X	-	X	-	-	-	-	-	-	-	-	
S	1.00	0929		-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CV	1.00	0939		X	-	-	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	-	X	X	-	X	
CV	1.00	0948		-	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	-	X	X	-	X
ICB	1.00	0957		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	-	X	X	-	X	
ICSA	1.00	1005		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	
ICSAB	1.00	1015		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	
CRI	1.00	1026		-	X	X	X	X	X	X	-	X	X	X	X	X	X	X	-	X	-	X	X	-	X	X	
CCV	1.00	1035		X	-	X	X	X	X	X	-	X	X	X	X	X	X	X	-	X	-	X	X	-	X	X	
CCV	1.00	1043		-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	-	X	-	X	
CB	1.00	1052		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	-	X	X	-	X	
BS	1.00	1100		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	-	X	X	-	X	X	
LCSS	1.00	1109		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	
LCSS	10.00	1117		-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZZ	1.00	1126		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZZ	1.00	1135		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZZ	1.00	1143		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZZ	1.00	1155		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZZ	1.00	1203		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZZ	5.00	1212		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCV	1.00	1220		X	-	X	X	X	X	-	X	X	X	X	X	X	X	X	-	X	-	X	X	-	X	X	
CCV	1.00	1229		-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	-	X	-	X	
CCB	1.00	1238		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1247		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	-	X	-	X	
MEADL3	1.00	1255		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	

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ANALYSIS RUN LOG

ab Name: INDUSTRIAL AND ENVIRONMEN

Contract: 68-D3-0041

.ab Code: IEA Case No.: 23669

SAS No.: _____ SDG No.: MEADL1

Instrument ID Number: TJA61T

Method: P

Start Date: 06/20/95

End Date: 06/20/95

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ANALYSIS RUN LOG

ab Name: INDUSTRIAL AND ENVIRONMEN

Contract: 68-D3-0041

ab Code: IEA Case No.: 23669

SAS No.: SDG No.:MEADL1

Instrument ID Number: TJA61T

Method: P

Start Date: 06/24/95

End Date: 06/24/95

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14
ANALYSIS RUN LOG

ab Name: INDUSTRIAL AND ENVIRONMEN

Contract: 68-D3-0041

ab Code: IEA Case No.: 23669

SAS No.: SDG No.:MEADL1

Instrument ID Number: 3200A

Method: CV

Start Date: 06/20/95

End Date: 06/20/95

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ANALYSIS RUN LOG

Lab Name: INDUSTRIAL_AND_ENVIRONMEN

Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669

SAS No.: SDG No.: MEADL1

Instrument ID Number: 3200A

Method: CV

Start Date: 06/21/95

End Date: 06/21/95

EPA Sample No.	D/F	Time	% R	Analytes																						
				A L	S B	A S	B A	B E	C D	C C	C C	F O	P U	M B	M G	M N	H G	N I	K G	S E	A G	A N	T A	V L	Z N	C N
SG	1.00	0919		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
.5	1.00	0925		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
S1.0	1.00	0930		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
S3.0	1.00	0936		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
S5.0	1.00	0942		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
S10.0	1.00	0947		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
ICV	1.00	0953		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
ICB	1.00	0959		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
CRA	1.00	1004		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
CV	1.00	1010		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
CB	1.00	1016		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
PBS	1.00	1021		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
LCSS	5.00	1027		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEADL1	1.00	1032		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEADL2	1.00	1038		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEADL3	1.00	1044		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEADL3D	1.00	1049		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEADL3S	1.00	1055		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEADL4	1.00	1101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEZP87	1.00	1106		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEZP88	1.00	1112		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
CCV	1.00	1118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
CCB	1.00	1123		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEZP89	1.00	1129		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEZP90	1.00	1135		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEZP91	1.00	1140		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
MEZP92	1.00	1146		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1152		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	5.00	1157		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1203		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1209		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1214		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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14
ANALYSIS RUN LOG

ab Name: INDUSTRIAL AND ENVIRONMEN Contract: 68-D3-0041

ab Code: IEA Case No.: 23669 SAS No.: SDG No.: MEADL1

Instrument ID Number: 3200A Method: CV

Start Date: 06/21/95 **End Date:** 06/21/95

EPA Sample No.	D/F	Time	% R	Analytes																						
				A L	S B	A S	B A	B E	C D	C A	C R	C O	F U	P E	M B	M G	H N	N G	K I	S E	A G	A L	T L	V N	Z N	C N
ZZZZZ	1.00	1220		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
V	1.00	1225		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	
CCB	1.00	1231		-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-	
				</td																						

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14
ANALYSIS RUN LOG

ab Name: INDUSTRIAL_AND_ENVIRONMEN

Contract: 68-D3-0041

ab Code: IEA Case No.: 23669

SAS No.: SDG No.: MEADL1

Instrument ID Number: LACHAT

Method: CA

Start Date: 06/20/95

End Date: 06/20/95

EPA Sample No.	D/F	Time	% R	Analytes																						
				A L	S B	A S	B A	B E	C D	C A	C R	C O	F U	P B	M B	M G	H N	N G	I I	K K	S E	A G	N A	T L	V T	Z N
S400	1.00	1549		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
00	1.00	1550		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S100	1.00	1551		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S50	1.00	1552		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S20	1.00	1553		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S10	1.00	1554		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S0	1.00	1555		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICV	1.00	1559		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICB	1.00	1559		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CV	1.00	1600		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CB	1.00	1601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
PBW	1.00	1602		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZ	1.00	1603		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1603		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1604		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1605		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1606		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1607		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1607		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1608		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1609		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCV	1.00	1609		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCB	1.00	1610		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZ	1.00	1611		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1612		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1612		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1613		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1614		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1615		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1615		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1616		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZ	1.00	1617		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

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ANALYSIS RUN LOG

ab Name: INDUSTRIAL AND ENVIRONMEN

Contract: 68-D3-0041

ab Code: IEA Case No.: 23669

SAS No.: SDG No.:MEADL1

Instrument ID Number: LACHAT

Method: CA

Start Date: 06/20/95

End Date: 06/20/95

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14
ANALYSIS RUN LOG

Lab Name: INDUSTRIAL_AND_ENVIRONMEN

Contract: 68-D3-0041

Lab Code: IEA Case No.: 23669

SAS No.: SDG No.: MEADLL

Instrument ID Number: LACHAT

Method: CA

Start Date: 06/21/95

End Date: 06/21/95

EPA Sample No.	D/F	Time	% R	Analytes																						
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K G	S E	A G	N A	T L	V T	Z N
S400	1.00	1049		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
J0	1.00	1050		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S100	1.00	1051		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S50	1.00	1052		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S20	1.00	1053		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S10	1.00	1054		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S0	1.00	1055		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICV	1.00	1059		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICB	1.00	1100		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CV	1.00	1100		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
JB	1.00	1101		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
PBS	1.00	1102		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
LCSS	1.00	1103		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEADL1	1.00	1103		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEADL2	1.00	1104		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEADL3	1.00	1105		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEADL3S	1.00	1106		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEADL3D	1.00	1106		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEADL4	1.00	1107		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEZP87	1.00	1108		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEZP88	1.00	1108		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCV	1.00	1109		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCB	1.00	1110		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEZP89	1.00	1111		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEZP90	1.00	1112		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEZP91	1.00	1112		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEZP92	1.00	1113		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZZ	1.00	1114		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1115		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1115		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1116		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1117		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

U.S. EPA - CLP

14
ANALYSIS RUN LOG

ab Name: INDUSTRIAL AND ENVIRONMEN

Contract: 68-D3-0041

.ab Code: IEA Case No.: 23669

SAS No.: SDG No.:MEADL1

Instrument ID Number: LACHAT

Method: CA

Start Date: 06/21/95

End Date: 06/21/95

EPA Sample No.	D/F	Time	% R	Analytes																						
				A L	S B	A S	B A	B E	C D	C A	C R	C O	F U	P E	M B	M G	H N	N G	K I	S E	A G	N A	T L	V L	Z N	C X
ZZZZZZ	1.00	1118		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
V	1.00	1119		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
CCB	1.00	1119		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
				</td																						

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 23669
 DATA SET: MEADL1
 LAB QC #: _____
 DATE: 7/5/95

SITE: Celotex Corp Dump MATRIX: Soil/water
 LAB: IEA CONC: Low
 REVIEWED BY: J. Redd

WATER SAMPLE SPK: _____
 WATER SAMPLE DUP: _____
 SOIL SAMPLE SPK: MEADL3
 SOIL SAMPLE DUP: MEADL3

FORM 0	6/15	FORM 2	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 8	FORM 9	FORM 10	FORM 11	FORM 12	FORM 13	FORM 14	FORM 15	Water FIELD	FIELD	FIELD	FIELD	FIELD	
ELEMENT	BOLD TIME	INITIAL CALIB	CONTI N CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICB QD	SOIL SPKES QD	SOIL DUP RPD	LCS AQ	LCS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP RPD	AQ SPKES QD	BLANK L7	DUP RPD 9/5/95	BLANK 9/5/95	DUP RPD 9/5/95	CPAA DUP	CPAA ANALYT SPKES
ALUMINUM	ok	ok	ok	31.1		ok	ok	ok	ok	ok	ok				ok		/	ok			
ANTIMONY																	/				
ARSENIC				(2.1)	(4.193)																
BARIUM																					
BERYLLIUM																					
CADMIUM																					
CALCIUM					(72.661)																
CHROMIUM						2.0															
COBALT																					
COPPER																					
IRON																					
LEAD																					
MAGNESIUM																					
MANGANESE																					
MERCURY																					
NICKEL																					
POTASSIUM																					
SELENIUM																					
SILVER																					
SODIUM																					
TRIPLUM																					
TIN																					
VANADIUM																					
ZINC																					
CTANDS	✓	✓	✓				✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		

POW-
 As(4.193ug/L) Ni(2.353ug/L) Tl(7.340ug/L) MEADL7 | CCB
 MEADL7 | MZ(12.345/L) n.CAN-7

RECEIVED

IEA

SDG NARRATIVE INORGANIC/METALS FRACTION

JUN 30 1995

CASE: 23669

SDG NO.: MEADL1

CONTRACT: 68-D3-0041
U.S. EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Sample Numbers: 950631901 (MEADL1), 950631902 (MEADL2), 950631903 (MEADL3),
950631904 (MEADL4), 950631905 (MEADL7), 950631906 (MEZP87),
950631907 (MEZP89), 950631908 (MEZP90), 950631909 (MEZP91),
950631910 (MEZP92), 950631911 (MEZP92) for TAL Metals and Cyanide
Analysis

This case was closed on June 16, 1995. The temperature of the samples upon receipt by the Industrial and Environmental Analysts, Inc. (IEA) was 4 °C. All samples were received intact.

The pH of sample 950631905 (MEADL7) for Metals analysis was less than two (2) at the time of sample preparation.

The pH of sample 950631905 (MEADL7) for Cyanide analysis was greater than twelve (12) at the time of sample preparation.

Each sample has been assigned a 9-character IEA lab identification number.

The "N" flag is applied to any samples that do not meet acceptable spike recovery control limits of 75 to 125%. The following sample(s) are flagged with a "N" for the metal(s) listed:

<u>Sample ID</u>	<u>Metal</u>
All Soil Samples	Antimony

Any nonconformances associated with the analysis of samples in this case are noted as follows:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the laboratory manager or his designee, as verified by the following signature.

Donald Stogner 06/26/95

Donald Stogner
Inorganic Lab Manager
IEA, Inc.



United States Environmental Protection Agency
Contract Laboratory Program

Inorganic Traffic Report
& Chain of Custody Record
(For Inorganic CLP Analysis)

SAS No.
(if applicable)

Case No.

23619

309

1. Matrix (Enter in Column A)	2. Preservative (Enter in Column D)	2. Region No. Sampling Co.	4. Date Shipped Carrier	6. Date Received - Received by:
1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (specify in Column A)		5 IEPA	6/15/95 FedEx, I Express	6/16/95 S. Paschal
		Sampler (Name): <i>J. T. Jensen</i>	Airbill Number: 4413933742	Laboratory Contract Number: 68-D-0041
		Sampler Signature: <i>J. T. Jensen</i>	5. Ship To: Industrial Environmental Analysts, Inc. 300 Weston Pkwy Cary, NC 27513 ATTN: Lincoln Mitchell (919-677-0090)	Unit Price: 299
		3. Purpose* Early Action Lead CLEM Long-Term SF PA FS PRP REM RD ST RI RA FED SI O&M ESI NPLD	7. Transfer to: Received by: Contract Number Price	Date Received

CLP Sample Numbers (from labels)	A Matrix (from Box 1)	B Conc.: Low Med High	C Sample Type: Comp./ Grab	D Preser- vative (from Box 2)	E - RAS Analysis						F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases			
					Dates	Metals	Oxide	NO ₂ /NO ₃	Fluoride	pH						Solids	Water- soluble	Water- immis.	Lat.
Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	Other:	
MEZP87	5	L	G	6	XX							003252	X201	6/15/95	EAPC1	72			
MEZP88	5	L	G	6	XX							003253	X202	6/15/95	EAPC2	72			
MEZP89	5	L	G	6	XX							003254	X203	6/15/95	EAPC3	72			
MEZP90	5	L	G	6	XX							003255	X204	6/15/95	EAPC4	72			
MEZP91	5	L	G	6	XX							003256	X205	6/15/95	EAPC5	72			
MEZP92	5	L	G	6	XX							003257	X206	6/15/95	EAPC6	72	SDG find Sample		
MEADL1	5	L	G	6	XX							003258	X207	6/15/95	EA13D9	72			
MEADL2	5	L	G	6	XX							003259	X208	6/15/95	EA13E1	72			
MEADL3	5	L	G	6	XX							003260	X209	6/15/95	EA13E2	72			
MEADL4	5	L	G	6	XX							003261	X210	6/15/95	EA13F3	72			

Shipment for Case
Complete? (Y/N)

Page
1 of 1

Sample(s) to be Used for Laboratory QC
MEADL3

Additional Sampler Signatures

Chain of Custody Seal Number(s)

149568

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature) <i>J. T. Jensen</i>	Date / Time 6/15/95 18:15	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <i>S. Paschal</i>	Date / Time 6/16/95 09:15	Remarks Is custody seal intact? <input checked="" type="checkbox"/> Y/N/none 40C DW 9506144	*SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS *SEE REVERSE FOR PURPOSE CODE DEFINITIONS

DISTRIBUTION:

Green - Region Copy

White - Lab Copy for Return to Region

Pink - SMO Copy

Yellow - Lab Copy for Return to SMO

EPA Form 9110-1

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

*SEE REVERSE FOR PURPOSE CODE DEFINITIONS



United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

**Inorganic Traffic Report
& Chain of Custody Record**
(For Inorganic CLP Analysis)

SAS No.
(if applicable)

Case No.

23669

1. Sample Description (Enter in Column A)		2. Preservative (Enter in Column D)		3. Region No.		Sampling Co.		5. Date Shipped		Carrier		7. Date Received -- Received by					
		5		IEPA				6/15/95		Federal Express		6/16/95 O. McConah					
1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)		1. HCl 2. HNO3 3. NaOH 4. H ₂ SO ₄ 5. K ₂ Cr ₂ O ₇ 6. Ice only 7. Other (Specify) N. Not preserved		Sampler (Name)				Airbill Number				Laboratory Contract Number					
				P. J. Johnson				4413933764				68-D3-0041					
				Sampler Signature				6. Ship To				Unit Price					
								Industrial Environmental Analysts, Inc.				299					
								300 Weston Pkwy				8. Transfer to					
								Cary, NC 27513				Date Received					
								ATTN: Linda Mitchell (919) 467-0090				Received by					
												Contract Number					
												Price					
CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E - RAS Analysis				F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Sample Condition on Receipt	L High Conc. Phases (Check below)		
					Metals	Total Dissolved Cyanide	Nitrate/Nitrite	Fluoride							pH	Conductivity	Water
MEADL7	4	L	6	2	X				003309	G101	6/15/95	EAPC7	OK				
MEADL7	4	L	6	3	X				003310	G101	6/15/95	EAPC7	OK				
Shipment for Case complete? (Y/N)	Page 1 of 1		Sample used for a spike and/or duplicate				Additional Sampler Signatures				Chain of Custody Seal Number						
											149571						

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
John T. Conner					
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? (Y/N/none)
		D. McConah	6/16/95 0915	4°C	
Split Samples <input type="checkbox"/> Accepted (Signature)					
			<input type="checkbox"/> Declined		

CADRE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on June 30, 1995

FROM: Dennis Wesolowski, Chief (SQC-16J)
Contract Analytical Services Section

TO: Data User: IEPA

We have reviewed the data for the following case:

SITE NAME: Celotex Corp Dump (IL)

CASE NUMBER: 23669 SDG NUMBER: MEADL1

Number and Type of Samples: 11 (Soil/water)

Sample Numbers: MEADL1-4, 7, MEZP87-92

Laboratory: IEA Hrs. for Review: 4.0
+0.4 T.M.

Following are our findings:

Cadre review.

RECEIVED

JUL 24 1995

IEPA/DLPC

cc: Regional TPO

NARRATIVE

SITE: CELOTEX CORP DUMP
LABORATORY: IEA

CASE: 23669
SDG: MEADL1

This is a CADRE review. Following the CADRE review comments, the comments in bold print are from the data reviewer based on the hardcopy of the case.

LCS Criteria

DC-259: The following inorganic samples are associated with laboratory control samples (LCS) which were not run in the required analytical frequency.
Hits and non-detects are flagged "VS".

Aluminum

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Antimony

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

RECEIVED

JUL 24 1995

IEPA/DLPC

Arsenic

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Barium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Beryllium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Cadmium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Calcium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

J. Redlin
7/5/95

Chromium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Cobalt

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Copper

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Iron

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Lead

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Magnesium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Manganese

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Nickel

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Potassium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Reviewed by:

Date:

J. Redlin
7/5/95

James Redlin, Lockheed/ESAT

ESAT-5-041.1

Selenium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Silver

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Sodium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Thallium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Vanadium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

Zinc

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL3S
MEADL4, MEADL7, MEZP87, MEZP88, MEZP89, MEZP90
MEZP91, MEZP92

The DC-259 frequency defect is a default error which occurs whenever two LCSs are analyzed consecutively for separate analytes. This does not affect the data and does not require qualifications.

Matrix Spike Criteria

INORGANICS

Percent Recovery Limits

Upper	125.0
Lower	75.0
Extreme lower	30.0

Reviewed by:

J. Redlin

Date: 7-5-95

James Redlin, Lockheed/ESAT

ESAT-5-041.1

DC-264: The following inorganic samples are associated with matrix spikes which were not run in the required analytical frequency.
Hits and non-detects are flagged "VS".

Aluminum
MEADL7

Antimony
MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Arsenic
MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Barium
MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Beryllium
MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Cadmium
MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Chromium
MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Cobalt
MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Reviewed by: J. Redlin James Redlin, Lockheed/ESAT
Date: 7-5-95

ESAT-5-041.1

Copper

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Iron

MEADL7

Lead

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Manganese

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Mercury

MEADL7

Nickel

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Selenium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Silver

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Thallium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Vanadium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Reviewed by:

J. Redlin

Date:

7-5-95

James Redlin, Lockheed/ESAT

ESAT-5-041.1

Zinc

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3D, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Cyanide

MEADL7

There are no qualifications made on this basis.

After visual inspection, the reviewer qualified antimony samples MEADL1, MEADL2, MEADL3, MEADL4, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91 and MEZP92 (UJ) due to a low matrix spike recovery.

Duplicate Criteria

DC-254: The following inorganic samples are associated with duplicate analyses which have not met analytical sequence criteria.

Hits and non-detects are flagged "VS".

Aluminum

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL4, MEADL7
MEZP87, MEZP88, MEZP89, MEZP90, MEZP91, MEZP92

Antimony

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Arsenic

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Barium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Reviewed by:

James Redlin James Redlin, Lockheed/ESAT

Date:

7/5/95

ESAT-5-041.1

Beryllium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Cadmium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Calcium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL4, MEADL7
MEZP87, MEZP88, MEZP89, MEZP90, MEZP91, MEZP92

Chromium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Cobalt

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Copper

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Iron

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL4, MEADL7
MEZP87, MEZP88, MEZP89, MEZP90, MEZP91, MEZP92

Lead

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Magnesium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL4, MEADL7
MEZP87, MEZP88, MEZP89, MEZP90, MEZP91, MEZP92

Reviewed by:

J. Redlin

Date:

James Redlin, Lockheed/ESAT

ESAT-5-041.1

Manganese

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Mercury

MEADL7

Nickel

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Potassium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL4, MEADL7
MEZP87, MEZP88, MEZP89, MEZP90, MEZP91, MEZP92

Selenium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Silver

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Sodium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL4, MEADL7
MEZP87, MEZP88, MEZP89, MEZP90, MEZP91, MEZP92

Thallium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Vanadium

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Zinc

MEADL1, MEADL2, MEADL3, MEADL3A, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

Reviewed by:

J. Redlin

Date: 7-5-95

James Redlin, Lockheed/ESAT

ESAT-5-041.1

Cyanide
MEADL7

There are no qualifications made on this basis.

DC-257: The following inorganic samples are not qualified for duplicates due to missing information.
Hits and non-detects are flagged "M".

Aluminum
MEADL7

Antimony
MEADL7

Arsenic
MEADL7

Barium
MEADL7

Beryllium
MEADL7

Cadmium
MEADL7

Calcium
MEADL7

Chromium
MEADL7

Cobalt
MEADL7

Copper
MEADL7

Iron
MEADL7

Reviewed by: J. Redlin James Redlin, Lockheed/ESAT
Date: 7-5-95

ESAT-5-041.1

Lead
MEADL7

Magnesium
MEADL7

Manganese
MEADL7

Mercury
MEADL7

Nickel
MEADL7

Potassium
MEADL7

Selenium
MEADL7

Silver
MEADL7

Sodium
MEADL7

Thallium
MEADL7

Vanadium
MEADL7

Zinc
MEADL7

Cyanide
MEADL7

According to the ILM03.0 SOW, duplicate audits are not to be done on a field blank. Sample MEADL7 is a field blank. Therefore, no qualification was made on this basis.

Reviewed by: J. Redlin James Redlin, Lockheed/ESAT
Date: 7-5-95 ESAT-5-041.1

Laboratory Blanks Criteria

DC-283: The following inorganic samples are associated with a blank analyte with negative concentration whose absolute value is greater than the instrument detection limit (IDL). Data must be qualified using professional judgement.
Hits and non-detects are flagged "VS".

MEADL7
Sodium

There are no qualifications made on this basis.

DC-284: The following inorganic samples are associated with a blank concentration which is greater than the instrument detection limit (IDL). The sample concentration is also greater than the IDL and less than five times the blank concentration.
Hits are qualified "U" and non-detects are not flagged.

MEADL7
Arsenic, Calcium, Magnesium, Nickel
Potassium, Thallium, Zinc

The As, Ca, Mg, Ni, K, Tl and Zn results for MEADL7 are qualified (J).

DC-338: During review of the following inorganic samples, the reported IDL/default CRDL value was used for cyanide.

MEADL1, MEADL2, MEADL3, MEADL3D, MEADL3S, MEADL4
MEADL7, MEZP87, MEZP88, MEZP89, MEZP90, MEZP91
MEZP92

There are no qualifications made on this basis.

Reviewed by:
Date:

J. Redlin
7-5-95

James Redlin, Lockheed/ESAT

ESAT-5-041.1

FILENAME: MEADL1	DATE: 07/05/95	TIME: 14:04
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| CRITERIA FILE: FGDRI93 |
| DATA |
| | Original | | X | Qualified |
| QUALIFICATIONS PERFORMED | | |

X	Quantitation Limit Percent Moisture Holding Time Calibration Matrix Spike IPC Internal Standards SMC/Surrogate System Performance	X X X X X X X X	Sample Cleanup ICS LCS Duplicates Furnace AA QC Serial Dilutions Sample Result Verif. Laboratory Blanks Field QC
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PRINT NON-DETECTS				
X	Yes			No
PRINT REJECTED RESULTS				
X	Yes			No

CASE NO: 23669
SDG NO: MEADL1

TAL QUALIFIED SPREADSHEET

SITE:
LABORATORY: INDUSTRIAL & ENV ANALYSTS

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT SOLID:	MEADL1 MEADL1	MEADL2 MEADL2	MEADL3 MEADL3	MEADL3A Post Digest Spi	MEADL3D Duplicate Sampl
	Routine Sample SOIL/LOW	Routine Sample SOIL/LOW	Routine Sample SOIL/LOW	SOIL/LOW	SOIL/LOW
	64.3	71.2	69.4	69.4	69.4
INORG					
Aluminum	11500	10500	5760	M	5270 VS
Antimony	0.56 UJ	0.42 UJ	0.45 UJ	132 VS	0.54 VS
Arsenic	6.6	5.8	4.3	M	3.8 VS
Barium	193	100	54.6	M	55.9 VS
Beryllium	0.68	0.63	0.40	M	0.37 VS
Cadmium	0.55	0.70	0.39	M	0.30 VS
Calcium	10900	43400	15700	M	16700 VS
Chromium	16.4	14.9	8.4	M	8.2 VS
Cobalt	9.0	9.1	4.0	M	3.9 VS
Copper	19.3	12.0	11.2	M	11.6 VS
Iron	14300	21100	8500	M	8370 VS
Lead	16.7	10.6	17.6	M	17.0 VS
Magnesium	5490	15200	6020	M	6550 VS
Manganese	192	1310	94.0	M	97.0 VS
Mercury	0.15	0.12	0.12		0.12 U
Nickel	29.3	18.3	10.3	M	10.3 VS
Potassium	2300	2110	1040	M	929 VS
Selenium	0.83	0.63	0.67	M	0.82 VS
Silver	0.28	0.21	0.22	M	0.27 VS
Sodium	120	70.5	51.6	M	62.8 VS
Thallium	0.83	0.63	0.67	M	0.82 VS
Vanadium	20.1	20.1	13.4	M	11.8 VS
Zinc	88.1	65.4	50.3	M	47.2 VS
Cyanide	0.54	0.52	0.52		0.54 U

FILENAME: MEADL1.SDG DATE: 07/05/95 TIME: 12:05 CADRE 2.10

PAGE: 1

Water units are reported in ug/L.
Soil units are reported in mg/Kg.

TAL QUALIFIED SPREADSHEET

CASE NO: 23669
SDG NO: MEADL1

SITE:
LABORATORY: INDUSTRIAL & ENV ANALYSTS

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT SOLID:	MEADL3S Matrix Spike SOIL/LOW	MEADL4 MEADL4 Routine Sample SOIL/LOW	MEADL7 MEADL7 Routine Sample WATER/LOW	MEZP87 MEZP87 Routine Sample SOIL/LOW	MEZP88 MEZP88 Routine Sample SOIL/LOW
	69.4	67.9		75.5	49.3
INORG					
Aluminum		6400	38.6	4130	7650
Antimony	63.3 VS	0.44 UJ	2.0	0.35 UJ	0.68 UJ
Arsenic	444 VS	2.6	4.0 J	3.9	7.5
Barium	489 VS	39.3	1.0	27.3	67.6
Beryllium	11.2 VS	0.40	1.0	0.32	0.52
Cadmium	11.1 VS	0.31	1.0	0.20	0.49
Calcium		17600	234 J	19400	27700
Chromium	53.1 VS	8.7	1.0	6.6	11.9
Cobalt	110 VS	2.4	1.0	3.1	6.3
Copper	67.4 VS	10.7	1.0	5.2	17.4
Iron		7180	40.0	8740	15300
Lead	125 VS	14.7	2.0	12.3	17.8
Magnesium		6010	11.5 J	10300	9450
Manganese	200 VS	81.3	1.0	73.2	597
Mercury	0.61	0.12	0.20	0.12	0.18
Nickel	119 VS	7.8	2.5 J	7.0	14.6
Potassium		1210	33.8 J	758	1500
Selenium	442 VS	0.66	3.0	0.53	1.0
Silver	11.1 VS	0.22	1.0	0.18	0.34
Sodium		50.8	231	40.8	78.1
Thallium	437 VS	0.66	6.4 J	0.53	1.1
Vanadium	124 VS	11.1	1.0	10.0	15.4
Zinc	162 VS	40.7	5.8 J	31.5	66.9
Cyanide	5.0	0.65	10.0	0.49	0.85

FILENAME: MEADL1.SDG DATE: 07/05/95 TIME: 12:05 CADRE 2.10

PAGE: 2

Water units are reported in ug/L.
Soil units are reported in mg/Kg.

mg

TAL QUALIFIED SPREADSHEET

CASE NO: 23669
SDG NO: MEADL1

SITE:
LABORATORY: INDUSTRIAL & ENV ANALYSTS

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT SOLID:	MEZP89 MEZP89	MEZP90 MEZP90	MEZP91 MEZP91	MEZP92 MEZP92	
INORG	Routine Sample SOIL/LOW	Routine Sample SOIL/LOW	Routine Sample SOIL/LOW	Routine Sample SOIL/LOW	
Aluminum	14700	8280	15600	14600	
Antimony	0.61 UJ	0.55 UJ	0.55 UJ	0.45 UJ	
Arsenic	6.5	6.5	8.4	8.3	
Barium	110	81.7	121	111	
Beryllium	0.89	0.56	0.95	0.88	
Cadmium	0.72	0.46	0.75	0.76	
Calcium	15400	13700	9960	9820	
Chromium	21.7	13.3	20.9	19.6	
Cobalt	7.9	6.3	8.8	8.3	
Copper	27.7	16.8	19.8	19.0	
Iron	20800	14300	22700	22000	
Lead	25.4	21.1	24.9	23.6	
Magnesium	8450	8460	6490	6400	
Manganese	157	150	549	597	
Mercury	0.19	0.14	0.14	0.15	
Nickel	24.0	19.0	23.2	21.8	
Potassium	2200	1490	2120	2030	
Selenium	0.92	0.83	0.83	0.67	
Silver	0.30	0.28	0.28	0.22	
Sodium	145	63.6	64.9	51.6	
Thallium	0.92	0.83	0.96	0.74	
Vanadium	27.5	17.2	27.4	26.5	
Zinc	101	69.7	101	96.0	
Cyanide	0.91	0.44	0.71	0.67	

FILENAME: MEADL1.SDG DATE: 07/05/95 TIME: 12:05 CADRE 2.10

PAGE: 3

Water units are reported in ug/L.

Soil units are reported in mg/Kg.

mg

1971100002 w.11
Celotex
S.T. Tech



Weston Environmental Metrics, Inc.
2417 Bond Street
University Park, Illinois 60466-3182
708-534-5200 • Fax 708-534-5211

July 6, 1995

Mr. Ron Turpin
Illinois Environmental Protection Agency
Division of Laboratories #4
P.O. Box 19276
2200 Churchill Road
Springfield, IL 62794

Work Order No. 01104-009-001-0000

Dear Mr. Turpin:

Enclosed is the Analytical Report for the samples identified as follows:

RFW Lot: 9506G558
Date Received: 06/16/95
Turn-Around-Time: 30 Days
Analysis: Dioxins/Furans
Facility Name: Celotex Corp Dump
Site Inventory #: 1971100002
Site Billing Code: SA06-665
Project Manager: Mark Wagner

Please note that the Dioxins/Furans analyses was performed at Roy F. Weston, Inc.
Lionville Laboratory.

Very truly yours,

Weston Environmental Metrics, Inc.

Charles R. May
Project Manager

km

Enclosures

cc: Sue Doubet

Approved By:

Michael J. Healy
Vice President/Laboratory Manager

The results presented in this report relate only to the analytical testing and conditions of sample at receipt. This report pertains to only those samples actually tested. All 555 pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.



WESTON ANALYTICS
DIOXINS/FURANS DATA SUMMARY

=====
RFW BATCH NUMBER: 9506G558 CLIENT: IEPA W.O.#: 01104-009-001-0000-00 PAGE: 1

Client		X207	X207 MS	X207 MSD
Sample Information	ID:			
	RFW#:	001	001S	001T
	D.F.:	1	1	1
	Matrix:	SOIL	SOIL	SOIL
	Units:	ng/g	ng/g	ng/g

C-13 TCDD RECOVERY:	78 %	83 %	79 %
C-13 TCDF RECOVERY:	58 %	62 %	58 %
C-13 HXCDD RECOVERY:	86 %	84 %	83 %
C-13 HPCDF RECOVERY:	102 %	99 %	103 %
C-13 OCDD RECOVERY:	91 %	94 %	93 %

	CONC	EDL	FL	CONC	EDL	FL	CONC	EDL	FL
2378-TCDD.....		0.12	U	96%	0.09			93%	0.06
TOTAL TCDD		0.12	U	96%	0.10			93%	0.06
12378-PECDD.....		0.15	U	87%	0.21			87%	0.12
TOTAL PECDD		0.15	U	87%	0.21			87%	0.12
123478-HXCDD.....		0.12	U		0.19	U		0.14	U
123678-HXCDD.....		0.12	U	112%	0.19			106%	0.14
123789-HXCDD.....		0.11	U		0.18	U		0.13	U
TOTAL HXCDD		0.12	U	112%	0.19			106%	0.14
1234678-HPCDD		0.12	U	135%	0.19			134%	0.20
TOTAL HPCDD		0.15	U	135%	0.19			134%	0.20
OCDD.....	0.37	0.17	JS	116%	0.17			100%	0.21
2378-TCDF.....		0.07	U	110%	0.16			112%	0.08
TOTAL TCDF		0.08	U	110%	0.17			112%	0.12
12378-PECDF.....		0.17	U	145%	0.19			148%	0.16
23478-PECDF.....		0.17	U		0.18	U		0.15	U
TOTAL PECDF		0.17	U	145%	0.21			148%	0.17
123478-HXCDF.....		0.09	U		0.13	U		0.08	U
123678-HXCDF.....		0.08	U	98%	0.12			92%	0.07
234678-HXCDF.....		0.07	U		0.13	U		0.08	U
123789-HXCDF.....		0.08	U		0.14	U		0.13	U
TOTAL HXCDF		0.14	U	98%	0.14			92%	0.13
1234678-HPCDF		0.08	U	107%	0.19			101%	0.13
1234789-HPCDF		0.08	U		0.21	U		0.13	U
TOTAL HPCDF		0.19	U	107%	0.23			101%	0.18
OCDF.....		0.18	U	109%	0.12			110%	0.26

WESTON ANALYTICS
DIOXINS/FURANS DATA SUMMARY

=====
RFW BATCH NUMBER: 9506G558 CLIENT: IEPA W.O.#: 01104-009-001-0000-00

PAGE: 2

Client											
Sample Information	ID:	X202	X201		X208						
	RFW#:	002	003		004						
	D.F.:	1	1		1						
	Matrix:	SOIL	SOIL		SOIL						
	Units:	ng/g	ng/g		ng/g						
C-13 TCDD RECOVERY:		78 %	79 %		72 %						
C-13 TCDF RECOVERY:		58 %	60 %		51 %						
C-13 HXCDD RECOVERY:		82 %	88 %		76 %						
C-13 HPCDF RECOVERY:		103 %	104 %		101 %						
C-13 OCDD RECOVERY:		95 %	90 %		89 %						
	CONC	EDL	FL	CONC	EDL	FL	CONC	EDL	FL		
2378-TCDD.....		0.12	U	0.34	0.09	JS	0.30	0.07	JS		
TOTAL TCDD		0.12	U	1.6	0.09	JS	1.1	0.07	JS		
12378-PECDD.....		0.18	U		0.14	U		0.09	U		
TOTAL PECDD		0.18	U		0.18	U		0.12	U		
123478-HXCDD.....		0.16	U		0.13	U		0.19	U		
123678-HXCDD.....		0.16	U		0.12	U		0.18	U		
123789-HXCDD.....		0.16	U		0.16	U		0.18	U		
TOTAL HXCDD		0.16	U		0.18	U	0.45	0.19	JS		
1234678-HPCDD		0.13	U	0.48	0.09	JS	1.4	0.16			
TOTAL HPCDD		0.17	U	0.85	0.09	JS	2.9	0.16			
OCDD.....	0.42	0.24	JS	2.8	0.08		10	0.13			
2378-TCDF.....		0.08	U	0.57	0.09	JS	0.20	0.15	JS		
TOTAL TCDF		0.08	U	1.1	0.12	JS	0.20	0.47	JS		
12378-PECDF.....		0.23	U		0.17	U		0.11	U		
23478-PECDF.....		0.22	U		0.18	U		0.11	U		
TOTAL PECDF		0.23	U	1.3	0.19	JS	0.37	0.11	JS		
123478-HXCDF.....		0.11	U		0.12	U		0.07	U		
123678-HXCDF.....		0.10	U		0.11	U		0.07	U		
234678-HXCDF.....		0.09	U		0.09	U		0.07	U		
123789-HXCDF.....		0.10	U		0.09	U		0.08	U		
TOTAL HXCDF		0.13	U		0.13	U	0.14	0.08	JS		
1234678-HPCDF		0.15	U	0.12	0.08	HJS	0.36	0.10	JS		
1234789-HPCDF		0.24	U	0.11	0.08	HJS		0.11	U		
TOTAL HPCDF		0.24	U	0.23	0.08	HJS	0.64	0.11	JS		
OCDF.....		0.19	U	1.0	0.15	J	8.7	0.09			



ROY F. WESTON, INC.
LIONVILLE ANALYTICAL LABORATORY
ANALYTICAL CASE NARRATIVE

Client: IEPA
RFW #: 9506G558

W.O. #: 01104-009-001-0000-00
Date Received: 06-16-95
(Lionville: 06-17-95)

DIOXIN

The set of samples consisted of four (4) soil samples collected on 06-15-95.

The samples were extracted on 06-22-95 and analyzed according to criteria set forth in SW 846 Method 8280 (as specified in applicable WESTON SOPs) for Tetra through Octachlorinated Dibenzo-p-dioxin and Dibenzofuran target compounds on 06-25,26,27-95.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. All internal standard recoveries were within SW 846 limits (SW 846 Method 8280, Rev. 0, September, 1986).
2. All matrix spike recoveries were within EPA QC limits.
3. All blank spike recoveries were within EPA QC limits.
4. All results were reported on a dry-weight basis.
5. Small peaks required manual integration due to poor peak shape and baseline noise.
6. Response factors from the continuing (daily) calibration were used for all calculations.

J. Michael Taylor
J. Michael Taylor
Vice President and Laboratory Manager
Lionville Analytical Laboratory

06.29.95

Date

GC/MS SPECIAL PROJECTS DATA FLAGS

- B = Compound was detected in the associated method blank.
- D = Indicates compounds that were quantitated from an analysis at a secondary dilution factor. Also used to indicate that surrogate recoveries were not obtained because the extract had to be diluted for analysis.
- E = Indicates an estimated value. Used in cases where a target analyte is detected at a level greater than the upper quantification limit of instrument calibration.
- H = Peak height (instead of peak area) was used to calculate the isotopic or confirmation/quantitation ion ratio and to quantitate the analyte. Peak must meet all other identification criteria.
- I = Accurate quantitation was prevented due to interference.
- J = Indicates an estimated value. Used in cases where a target analyte is detected at a level less than the lower quantification limit of instrument calibration.
- S = Signal-to-noise ratio of the confirmation ion (M-COC1+ for PCDD/PCDF) does not meet 2.5 S/N requirement, but peak was determined to be positive in the judgement of the GC/MS analyst.
- U = Indicates that the compound was analyzed for but not detected. The estimated detection limit for the sample (EDL; not the method detection limit) is reported with the U.
- X = Isotope ratio criteria are not met using either peak height or peak area (used for EMPC only).
- Y = Lab-defined (can change with each data package).
- Z = Lab-defined (can change with each data package).

ABBREVIATIONS

BS = Blank Spike
BSD = Blank Spike Duplicate
CONC = Concentration
DF = Dilution Factor
DL = Dilution
EDL = Estimated Detection Limit
EMPC = Estimated Maximum Possible Concentration
(peak was observed that did not
meet identification criteria)
FL = Flag
MS = Matrix Spike
MSD = Matrix Spike Duplicate
NA = Not Applicable
NR = Not Required
R = Replicate
S = Spike (used in RFW #)
SP = Spike Compound
T = Spike Duplicate (used in RFW #)

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